RAILROAD GAZETTE

FRIDAY, APRIL 28, 1876.

Contributions.

A Deflector and Furnace Door.

CENTRAL PACIFIC RAILROAD CO.
Office of the General Master Mechanic,
SACRAMENTO, Cal., April 8, 1876.

TO THE EDITOR OF THE RAILROAD GAZETTE:

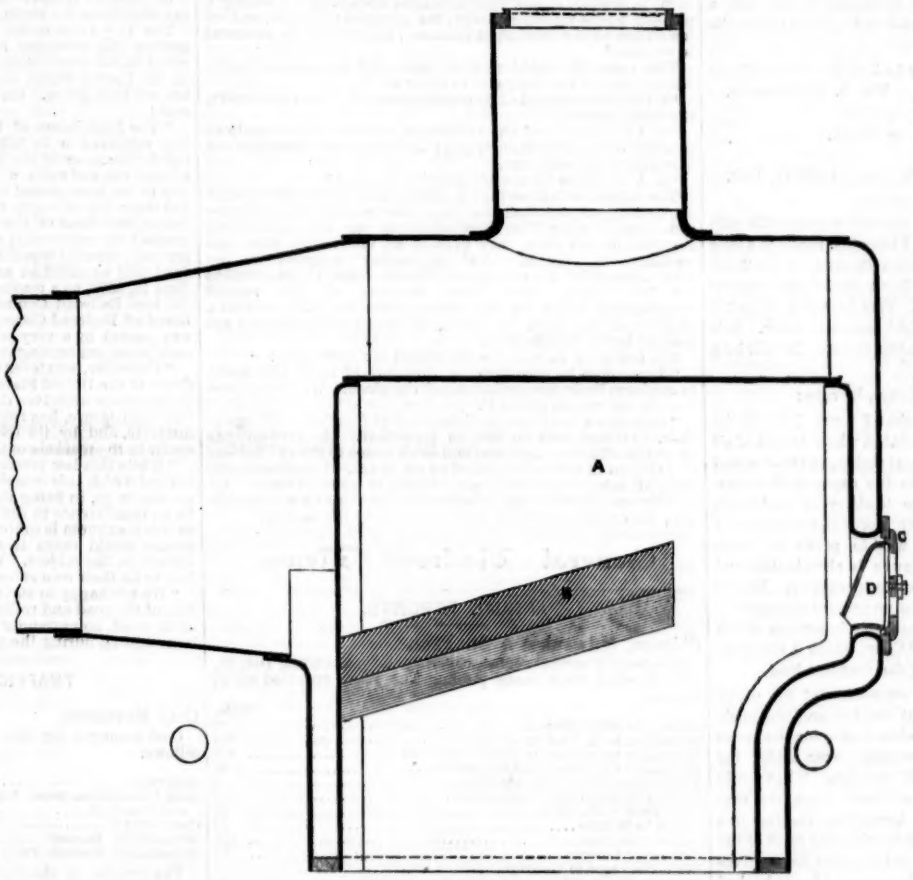
In your paper of March 3, in an article on "American and English Coal-burning Locomotives," you speak of the benefit to be derived from the use of deflectors for directing a current of air down upon the fire for the purpose of burning the gases.

I inclose you a tracing of a deflector as used upon all the coal-burning locomotives on this coast.

A is the fire-box, *B* is the "fire-brick arch" similar to those in general use, *C* is the furnace door with its opening and damper to close them, *D* is the deflector, bolted to the inside of the door; it serves the double purpose of directing a current of air to the surface of the fire, and protecting the door from being burned out. The openings through the door and deflector measure 27 square inches; a volume of air (large or small) is drawn in through these openings just in proportion as the engine is working.

Every engine upon which this device has been applied has improved in steaming and lessened the consumption of coal. I have tried deflectors over the door, but find the deflector attached to the door as shown in tracing most desirable, as it conducts the air more directly upon the fire, is less liable to burn out, and costs nothing for its application, as it supplies the place of an ordinary door-lining.

This arrangement was patented Dec. 23, 1873. A. J. STEVENS.



STEVENS' FURNACE DOOR.

"The Unequal Wear of Opposite Rails."

ATLANTIC & GREAT WESTERN R. R.,
MARION, O., April 15, 1876.

TO THE EDITOR OF THE RAILROAD GAZETTE:

Having noticed several articles in different papers lately in regard to south rails wearing faster than north rails, and heard their different reasons, the one from our very worthy Chief Engineer strikes me as being the most correct of any yet produced. We know that the south side of the track, being most exposed to the sun, soonest thaws out in the Spring, and settles first, thereby leaving the track out of level, throwing the greatest weight on the south rails as trains pass over." But another and greater cause is this: All rails as they come from the rolls are bevelled, and all come out the same way from the mills. One rail is all right to lay on the north side, and the south rails are put in without being turned. Consequently one rail is laid right with the bevel, and the wheels passing over run even on the whole head of the rail, while the other rail being laid wrong, the high side being in, the wheels run along on the high side of the rail, running on say, one-fourth of the top of the rail; consequently this rail is worn out first. I know this to be a fact: 35 miles of the track on this road was laid with 68-lb. C. I. Co. iron just as it came from the mill, and 50 per cent. more rails have been taken from the south side than the north side during my time of a little over three years, caused by being improperly laid. I think if the iron is properly laid and the track kept perfectly level, there will be no more wear of the south than the north rail, and I think by using the level properly and at all times when surfacing track, and observing well Mr. Latimer's motto, "In Hoc Signo Vinces," which, being interpreted, means "In this sign we conquer," but which we, as knights of the pick and shovel, must interpret as "by the use of the level we conquer," we shall all have a smooth and level track and save for the railroad company many thousands of dollars in iron and wear and tear of machinery. J. W. ALSOP.

Forced Economy in Maintenance of Way—Excursions of Track Foremen—The Railroads and the Centennial.

TO THE EDITOR OF THE RAILROAD GAZETTE:

About five years ago there was a visible and marked improvement in the condition of the permanent way of American railroads. Railroad managers had become keenly alive to the importance of a more thorough construction and maintenance than had characterized American railroads, and a general reform was apparent. This was something the people had long been clamoring for. Although there were some roads that had always been kept in good repair and were well built, the roads generally were in a wretched condition. Disasters were frequent, and the public press howled bitterly at the recklessness of American railroad management. The authorities were appealed to to enforce a more thorough system of construction and operation, and the officers and managers of the more important roads had discovered that it paid better to run trains on the rails than in the ditch. This discovery acted as a stimulus at headquarters, and the rank and file were called upon to "do their duty." The old principle of putting the grist in one end of the bag and a stone in the other was abandoned. New ideas were the order of the day, and there was a general departure from the old beaten paths, not only in the office but in the shops and on the road. There was a "tidal wave" of railroad reform, and the people were happy. Some of the American roads were said to be equal to any in the world in most respects and superior in others. A spirit of rivalry was manifested among railroad men, and superiority was aimed at, until on some roads perfection was very nearly reached. But, as is the case with all "tidal waves," there came a reaction. In this case it was not as powerful and sudden as reactions generally are, but its destructive force is yet to come. A year or more ago, when every one was talking of the "stagnation" that was near at hand, and inevitable ruin was predicted, railroad managers began to fortify and be prepared for the panic. Transportation would share in the general stoppage of business, and the little "semi-annual" would not be forthcoming, and the only way to avoid the impending calamity seemed to be to reduce expenses at once. Accordingly armies of men were mustered out of service, and the pay of the few remaining was cut down all it would bear. In this way the crisis came down tolerably easy, and things were much better than was expected. All went well for a time, and *retrenchment* was the order of the day. The one who could reduce expenses down to the finest point was first in the line of promotion.

Some roads were in a condition to withstand the change for a time without serious consequences, but it is now beginning to tell. Thousands of miles of track are rapidly falling back to the condition so much complained of before the reform. Not only is this apparent to any one having opportunities of observation, but a reference to the reports of train accidents in the *Railroad Gazette* points unmistakably to the fact that the condition of both track and rolling stock is rapidly becoming dangerous. The following, from the classified statement published in the *Gazette* Jan. 21, 1876, for the years 1873, '74 and '75, is interesting. Commencing with derailments, there were in 1873, 815; in 1874, 654; in 1875, 840. This in itself is significant; but the following selection of causes show conclusively that many of our roads are "going to wreck":

	1873.	1874.	1875.
Misplaced switch	72	67	81
Loose or spread rails	13	16	40
Broken axle	21	26	39
Broken wheel	26	20	33
Broken bridge or trestle	19	33	26
Broken truck	7	8	15
Broken or defective switch	10	12	15
Broken or defective joint	3	5	10
Broken or defective frog	4	8	8
Broken parallel-rod	..	..	5
Broken car	..	..	3

Accidents without collision or derailment:

	1873.	1874.	1875.
Boiler and cylinder explosions	19	18	29
Broken parallel-rod	11	8	14
Broken axle	..	..	13
Broken tire	..	..	9
Broken crank-pin	..	..	2

The above shows a steady increase of accidents from breaks and defects of material, the direct result of a want of proper care and inspection and the needed repairs. The list of breaks in rolling stock is no doubt lengthened by the lack of repairs to permanent way, although to a certain degree the increase is chargeable to inadequate repairs in the machinery departments.

The increase from misplaced switches would seem to be the result of employing incompetent switch tenders; the trusty ones not standing the reduction in wages and cheaper (?) ones intrusted with that important post as a matter of economy. The increase in the number of broken bridges and trestles may be traced to the same cause as other breakages, viz.: economy, either forced or voluntary.

A careful study of each item in the above statement, with the year in which the accidents occurred kept in view, brings up dismal remembrances of the past and causes one to shudder for the future of our railroads. And among all the causes above mentioned perhaps the most inexcusable is that of "loose or spread rails." Any railroad company that is *obliged* to exercise economy to such an extent that the rails spread or roll out of place for want of proper fastening would better suspend and sell out at auction, and a company that would voluntarily go to that extreme (as some have), the managers thereof should be punished. A railroad that can earn *anything* can certainly be provided with cross-ties and spikes sufficient to keep the rails in place.

In this connection it may not be out of place to state here that an engine and freight train were thrown from the track *by the spreading of the rails* on the road referred to in the article in the *Railroad Gazette* of Feb. 18, headed "About Rail Joints, and Matters Connected Therewith." This accident occurred soon after the article was written, and before it appeared in print. The accident is reported in the *Railroad Gazette's* "Train Accidents in January." Now, the writer does not pretend to any knowledge that the smash was to take place, like the old lady that "*knew* the old cow ate up the grindstone," but he could predict an occurrence of the kind at almost any time on that and many other roads without injury to his reputation as a prophet. And this occurred on a road where there was no lack of material for making a safe road. White-oak ties are abundant and cheap all along the line, and there are spikes enough lying about the premises, with those that have been carried off by "the natives," to make a safe track. And probably five cents worth of labor at driving spikes into the ties that were sound at that particular point would have prevented an accident that smashed a freight train and blocked the road several hours. There is no "forced economy" about this, and if incompetency and stupidity were not the cause of this trouble what would you call it?

It may not be easy to understand the difference in the results of *too much* economy, whether forced or voluntary, but there is this difference: A company that is *obliged* to economize, in the proper sense of the term, usually makes the best possible use of all the labor and material it can command, and matters of minor importance (so called, but which are of real importance) receive attention; whereas the company that practices a sort of reckless or "ring" economy is likely to do literally a smashing business.

And while some of our roads are forced to study true economy others are given to extravagance in expenditures, and it seems to be with railroad companies as with individuals who try to "be in fashion."

Miss Shoddy comes out in a new gear as expensive as it is ridiculous, and the wives and daughters of thieves and ringsters can follow suit without damage. Those who are honest and simple and foolish, strive to do likewise and miserably fail. Railroad companies do exactly the same thing, with this difference: while they bring poverty and ruin to the road, they bring death to some of us.

It is highly probable that some wholesome lessons in economy will be learned from the past year of "thin transportation." Although the blow from the panic did not fall as heavily on many heads as was expected, yet it had the effect to set railroad men to thinking how they could best save a dollar, and not a little wasteful extravagance has given place to more healthy economy on a few roads; but a glance at the above figures suggest far too much economy yet. The many roads that reduced expenses beyond reason, and have helped to swell the above list in consequence, should lose no time in getting back to a business point and make a better showing in the list of "broken and defective" for the year 1876, which promises to be a lively one for American railroads.

The passenger traffic will be especially heavy, and no effort should be spared to promote safety and comfort. And, perhaps, it would be well to bear in mind that many people would prefer safe comfort to dangerous luxury.

The excursion of track foremen to Jersey City, some time ago, suggests the idea that much good would come of it if the officers of more railroads would gather up their track men and give them opportunities of looking thoroughly at some well

kept road. Men who have been hid away for years in some swampy wilderness and have never seen any track but the one they now care for might get some valuable hints in the course of a visit to other roads and other men. Give them time enough to walk over a few miles of track and through the yards, where they may converse with other men on all matters of interest pertaining to their calling. The men they are visiting will take a pride in showing them their work, and an interchange of ideas will wake them up. They will go home to their road full of ideas that are as good as gold to their company. These men have the care of the back bone of the railroad system, and they should be taught how to do it well.

It would seem that the coming show at Philadelphia would furnish an excellent opportunity for testing the value of new inventions in the line of track fixtures. The tracks in and about the grounds might be fitted up with joint fixtures, switches, etc., etc., where they could be seen by visitors to better advantage than if not in actual use. Inventors might perhaps make arrangements with the Society of Civil Engineers to assist in making tests of the relative value of such inventions as the Society may think of sufficient merit and importance to warrant them in taking charge of and conducting experiments. There are some recent inventions that would seem to be valuable to the railroad community if they were once put to use, but there is so much useless trash forced upon the attention of railroad officials that nothing short of actual tests by disinterested parties will bring them into general use or even to notice. The object of the Society should be as much to advance every interest in the line of their profession pertaining to permanent way as that of any other branch of engineering. It is to be hoped that the Society and the management will take a lively interest in putting American railroads *fairly* before the world at the Centennial.

Will the reader please take another look at the above column of figures? WM. S. HUNTINGTON.

The Metre Gauge in India.

No. 63 PINE STREET, NEW YORK, April 21, 1876.

TO THE EDITOR OF THE RAILROAD GAZETTE:

I believe that you are aware that the metre gauge for railways has been abandoned for India. I have just received a long and interesting letter from Major James Browne, of the Royal Engineers, who is in charge of building a steel-chain suspension bridge over the Indus, in India. This bridge is to be 786 feet clear span, and 826 feet clear height from the water. It is for a railway inside, and bullock trains on top. It will be a grand structure.

In speaking of the metre-gauge railways, he says:

"You will be interested to hear that I went down to the great camp of exercise at Delhi this winter, where troops of all arms were collected (a most magnificent sight), and that a vast number of trials were made then as to the capacity of metre-gauge lines for carrying troops. The trials were made with real troops and real guns and military stores (no dummies or theorists admitted), and the result was to prove by overwhelming evidence that the metre gauge is abominably and entirely incapable of carrying field guns and cavalry. No one doubted that it could carry infantry, but no amount of ingenuity or coaxing will make a troop-horse get into a horse-box which is too small for him, or persuade a field gun, which is really six feet long, that it can get into a closed van four feet long.

"There were plenty of theoretical supporters of the metre gauge at Delhi, who tried to made out that two and two made five, but hard facts resulted in a hopeless fiasco for the metre gauge as a military means of conveyance even under the favorable circumstances of a camp of exercise. What would happen in warfare? As for the siege-train guns, the first attempt at carrying the 40-pounder Armstrong resulted in a collapse of the metre-gauge rolling stock, midst the jeers of the artillerymen, who suggested that the metre-gauge locomotives had better be put inside their lumber boxes; and freely backed their elephant trains to go faster along the metalled (ballasted) roads, than the over-weighted engines along the railway.

"If we ever build more lines on the narrow gauge in India after all this, we deserve to be kicked out of it."

The above speaks pretty strong against the hobby of toy railways.

The same day I received a letter from Mr. Higginbotham, Chief Engineer of the railways in Victoria, Australia, who arrived there last January after a journey in which he investigated the railways of America, of most European countries, and finally of India. In this letter is the following passage concerning the metre gauge and the Fairlie engine, together with a few remarks on some American passenger cars which I sent to Australia:

"One of my objects in going to India was to see the railways or the metre gauge (3 ft. 3⅜ in.) which the wisdom of our Royal Engineers has introduced there. I am more than ever convinced that such railways are a great and most costly blunder, and I met with many in India who quite agreed with me. They have not made the mistake in India of putting Fairlie's engines on these lines. In only one place have I heard these engines well spoken of, and that was in Canada, on one of the narrow-gauge railways near Toronto. Everywhere else that I have been, they are condemned and thrown out of use. In England you do not hear the 'Fairlie system' even mentioned.

"The carriages (passenger cars) which you sent me are very popular here for short journeys. For what we call here long journeys, say 200 miles, they are not so much liked. People complain that they want support for the head and shoulders, and this your carriages do not give so well as those of the English pattern. The workmanship and finish of the carriages are universally and most justly admired." W. W. EVANS.

The Delegates' Report to the London Erie Committee.

The delegates of the London committees of bond and shareholders, Messrs. Miller and Fleming, have made their report in London, which has been published by the committee with a letter from Mr. Jewett, the Receiver, in which he says that he has strong hopes that under the proposed arrangement the property can be put into condition without any further sacrifice or delay on the part of the bondholders, though it would be better if the bondholders would consent to a funding for one or two years longer. "With the amount, however," he says, "contemplated in the agreement above referred to, a satisfactory result of the Vanderbilt suit, and a reasonable recovery in London, there ought to be sufficient money to make the needed improvements to the property, and put the payment of the coupons, as they mature hereafter, with the other obligations of the company, beyond all contingency." Mr. Jewett thinks it safe to count on $4,200,000 as minimum yearly net earnings, and says that even without material increase of traffic they should be more, if the road is once put into condition to compete on anything like equal terms with its two great competitors.

The delegates say that the total floating debt on the 1st of February was $4,457,760, including the dues for supplies and labor in January, which amounted to $1,650,000.

For four months of the current fiscal year from Oct. 1 to Jan. 31 the earnings and expenses had been:

	1875-76.	1874-65.	Inc. or Dec.	P. c.
Gross earnings	$5,812,971	$5,580,387	Inc. $232,584	4.2
Expenses	4,762,770	4,077,941	Inc. 674,829	16.5
Net earnings	$1,060,201	$1,502,446	Dec $442,245	29.5

Much of the expenditures this year was for renewals of equipment and improvements of the road.

The delegates say:

"Mr. Jewett is, we believe, a thoroughly honest man, and has the good of the company at heart, but his state of health, the result of his unfortunate accident, renders him, in our opinion, unable, unless with the ablest assistance, to occupy a position where untiring energy, the greatest vigilance, and an insistance on the most rigid economy, are absolutely essential to success."

The essential conditions of a successful reorganization are summed up by the delegates as follows:

"1 Effective control of the management by the real owners, the bondholders.

"2. A restoration of an equilibrium between the compulsory interest charge on the mortgage debt and the minimum net earnings of the company.

"3. A provision for narrow-ganging the line."

The delegates believe that a foreclosure in accordance with the committee plan would be best, but in order to provide for the possible refusal of shareholders to pay the assessments required by this plan, they present an alternative plan, according to which the September coupons of the first consolidated mortgage bonds would be funded for five years, and both coupons of the second consolidated bonds for the same period, on condition that a majority of the stock be placed in the hands of trustees appointed by the bondholders.

The following passages in the report are noticeable:

"There may be opposition on the part of those who desire to continue their manipulations of the stock. We cannot prevent it, but we can defeat it.

"Sometimes one hears on this side that foreclosure is impossible. All that need be said in reply is that the Erie Company was in 1861 foreclosed and new stock issued to the old holders on payment of an assessment of $9 per share. Foreclosure, instead of being impossible, is inevitable, if gone on with. All that the stockholders can possibly do is to delay its consummation, the expense of which must be borne by themselves."

General Railroad News.

ANNUAL REPORTS.

Chicago, Milwaukee & St. Paul.

The twelfth annual report, covering the year ending Dec. 31, 1875, has just been made public. The roads operated are as follows:

	Miles.
Chicago to Milwaukee	85
Milwaukee to St. Paul by La Crosse	324
Milwaukee to St. Paul by Prairie du Chien	405
Milwaukee to Portage City by Horicon	96
North Milwaukee to Schwartzburg	6
Horicon to Berlin and Winneconne	57
Watertown to Madison	37
Milton to Monroe	42
Calmar to Algona	126
Conover to Decorah	10
North McGregor to McGregor	1
Austin to Mason City	40
Mendota to Minneapolis	9
Hastings to Glencoe	75
Sabula to Marion	87
Total	1,400

A branch one mile long, from McGregor to North McGregor, was built during the year.

The equipment consists of 208 engines; 66 first-class and 31 second-class passenger cars, 10 sleeping and 57 baggage, mail and express cars; 3,098 box and caboose, 196 stock and 797 flat and coal cars; 2 boarding cars. During the year 5 engines, 2 passenger, 251 box and stock and 132 flat cars have been added to the equipment at a cost of $217,245.80.

The company holds $2,001,000 (a majority) of the stock of the Western Union Railroad Company, and $203,000 bonds of the Oshkosh & Mississippi River road.

The securities representing this property are as follows:

Preferred stock	$12,274,483
Common stock	15,399,261
Total	$27,673,744
First-mortgage bonds, 7 per cent., all classes	17,523,000
" " " 8 " " " "	3,674,000
Second-mortgage bonds, 7.3 per cent	1,315,000
Other 7 per cent. bonds	1,671,000
" 8 " " "	847,000
Equipment and bridge bonds, 10 per cent	245,000
Consolidated mortgage bonds, 7 per cent	2,154,000
Total bonded debt ($19,378 per mile)	$27,129,000
Total ($39,145 per mile)	$54,802,744

The company has called in $547,000 8 per cent. bonds and interest thereon will cease May 1. The annual interest charge is $1,952,535, of which $280,000 is payable in gold.

The work of the year was as follows:

	1875.	1874.	Inc. or Dec.	P. c.
Passenger train mileage	1,212,738	1,194,310	Inc.. 18,428	1 5
Freight train mileage ..	3,124,603	3,505,561	Dec.. 380,958	10.9
Service train mileage ...	355,450	344,310	Inc.. 11,140	3.2
Total	4,692,791	5,044,181	Dec.. 351,390	7.0
Passengers carried	1,048,150	1,051,527	Dec.. 3,377	0.3
Passenger mileage	54,880,848	58,260,429	Dec..3,379,581	5.8
Tons freight carried	1,832,527	1,735,555	Inc.. 96,972	5.6
Tonnage mileage	272,539,502	259,168,248	Inc.13,371,254	5.3

The earnings from this work were as follows:

	1875.	1874.	Inc. or Dec.	P. c.
From freight	$5,690,568 26	$6,137,151 84	Dec..$446,583 58	7.3
Passengers	1,681,614 32	1,933,664 98	Dec.. 252,050 66	13.0
Mails, expr's, etc	883,561 06	882,200 29	Inc.. 1,360 77	0.2
Total	$8,255,743 64	$8,953,017 11	Dec..$697,273 47	7.8
Working exp'ses	5,170,353 71	5,871,116 38	Dec.. 700,762 67	11.9
Net earnings	$3,085,389 93	$3,081,900 73	Inc.. $3,489 20	0.1
Gross earn. per mile	$5,897	$6,400	Dec.. $503	7.9
Netearn. per mile	2,204	2,203	Inc.. 1	...
Per cent. of exp's	62.63	65.58	Dec.. 2.95	4.5

The increase of 5.2 per cent. in tonnage mileage was accompanied by a decrease of 10.9 per cent. in freight-train mileage, indicating an increase of train loads. There was, however, a considerable decrease in rates, as is shown by the following:

	1875.	1874.	Dec.	P. c.
Average receipts per passenger per mile	3.09 cts.	3.35 cts.	0.26 cts.	7.8
Average receipts per ton per mile	2.10 cts.	2.38 cts.	0.28 cts.	11.8

Of the tonnage mileage 68.4 per cent. was of east-bound freight. The average receipt per ton per mile on east-bound freight was 1.87 cents; west-bound, 2.93 cents.

The expenditures for permanent improvements during the year were $716,068.43, the chief items being $217,245.80 for new equipment; $256,722.54 for steel rails, and $109,662.96 for the new tunnel at Greenfield and approaches. The material used in repairs of track included 5,495 tons steel rails, 5,207 tons re-rolled iron rails and 306,019 new ties. About three-fifths of the steel rails were laid on the La Crosse Division. At the close of the year there were 246.56 miles of steel in the track.

The Legislature of Wisconsin, at its recent session, passed a law ratifying and confirming the consolidated mortgage for $35,000,000 previously executed. Of this $35,000,000 bonds to the amount of $27,399,000 are to be exchanged for outstanding bonds of other issues, the balance to be issued from time to time, as needed for permanent improvements.

In October $100,000 second-mortgage bonds were paid and canceled from the sinking fund provided for that purpose.

The two cases under the Potter law, which were decided against the company by the Wisconsin Supreme Court, as noted in last year's report, and appealed to the Supreme Court of the United States, have been there argued, but no decision has yet been given. On this point President Mitchell's report says:

"The Legislature of Wisconsin which assembled in January last appeared to be fully impressed with the unjust and impolitic character of the legislation in respect to railroads, and at once entered upon a thorough examination and investigation of the laws passed in 1874 and 1875. Their inquiries satisfied them that not only the best interests of the railroad companies, but those of the whole people of the State as well, demanded the substantial repeal of the former legislation. An act was prepared repealing all the provisions of the law which fixed and established arbitrary rates, prescribing our tariff of June 15, 1872, as a maximum of tariff of rates, and providing for one Railroad Commissioner, with powers similar to the Board of Railroad Commissioners in Massachusetts. This act was passed by a very large majority, more than two-thirds of each house concurring in its passage.

"Therefore, whatever may be the decision of the Supreme Court of the United States in the cases now before it, we may congratulate ourselves that the State of Wisconsin, through its own Legislature, has redressed the wrong done to its railroad interests, and by its own free and voluntary act restored its credit in the markets of the world.

"While this law prescribes a former tariff as a maximum, beyond which this company and the Chicago & Northwestern are not to go, in fixing their rates of fare and freight there will be no interference in the practical operation of the companies, as this maximum is quite as high as any rates which the companies would deem it advisable to adopt if there were no statute on the subject. Within this limit they are left entirely free to fix their own rates.

"We are happy to state that, owing to the excellent condition of the road and rolling stock, and the careful management of the road, no passenger has been killed, and only eight have been injured during the year, and they slightly."

TRAFFIC AND EARNINGS.

Coal Movement.

Coal tonnages for the week ending April 15 are reported as follows:

	1876.	1875.	Inc. or Dec.	P. c.
Anthracite	406,554	212,424	Inc. 193,130	90.9
Semi-bituminous, Broad Top and Clearfield	30,358	27,616	Inc. 2,742	9.9
Cumberland	25,339	47,255	Dec. 21,916	46.3
Bituminous, Barclay	7,526	3,628	Inc. 3,898	107.4
Bituminous, Western Pa.	29,667	29,518	Inc. 149	0.5

The trouble in the Cumberland region as to the rates of transportation over the Cumberland & Pennsylvania Railroad threatens to have a serious influence upon the trade. A fuller account of what has been done in the matter will be found elsewhere. There is also trouble with the miners and a partial strike has reduced production for a time.

The coal tonnage of the Pennsylvania Railroad for the three months ending March 31 was as follows:

	Tons.
Anthracite	119,639
Semi-bituminous, Broad Top and Clearfield	296,9.2
Cumberland	34,182
Bituminous	361,294
Coke	182,724
Total	992,781

Being 90,250 car-loads, or 3,009 trains of 30 cars each.

Flour and Grain Movement.

San Francisco shipments for March were 478,333 bushels of wheat and 38,100 barrels flour. The wheat all went to Great Britain; of the flour, 17,700 barrels went to China and Japan, 7,000 to England, 7,300 to Mexico and Central America, 1,900 to Siberia and most of the rest to the Pacific islands. For the nine months of the California crop year, from July 1 to March 31, the shipments were as follows:

	1875-76.	1874-75.	Decrease.	P. c.
Wheat, bushels	9,200,667	13,399,667	4,199,000	31.3
Flour, barrels	353,600	377,500	23,900	6.3
Total, bushels	10,791,667	15,098,417	4,306,550	28.5

Flour being reduced to wheat in the totals. The shipments are the smallest for four years past, being less by 17.8 per cent. than those for 1873-74, and by 28.7 per cent. than those for 1872-73. The surplus remaining for export of last year's wheat crop is estimated at 500,000 bushels.

Lake Navigation.

Several steam vessels left Chicago and Milwaukee for the lower lakes last week, and Monday last the sail vessels generally began to move. Vessels had reached Mackinac dock, but nothing was reported through the straits.

The Texas Cattle Drive.

A revised estimate of the season's drive from Texas, made by the Kansas City (Mo.) *Price Current*, puts the probable number started at 335,000 head. It is thought that one-fourth of

these cattle will stop in Northern Texas. Some of them are for shipment, but the largest portion of them will go to stock new ranches. The other three-fourths will go to Wichita, Dodge City, Kansas City and the Platte River. This vast herd is composed of cows, yearlings, two-year-old steers and heifers. The proportion of three and four-year-old steers is exceedingly small.

Ocean Freights.

New York quotations last Tuesday were: To Liverpool, corn by steam, 4¾d.; sugar, tallow and syrup, 25s. per ton. To London, by steam, grain at 7d. per bushel; flour, 2s. per barrel. To Glasgow, grain by steam, 7d. to 7½d.; bacon, 25s. per ton. Petroleum, by sail, for Cork and orders, 4s. 3d. From Philadelphia, a bark was chartered for Cork and orders, with grain at 9s. 10½d. per quarter—8¾d. per bushel; and from Baltimore a brig at nearly the same rate—5s. 9d. per quarter—and a bark to Belfast at 5s. per quarter.

Railroad Earnings.

Earnings for various periods are reported as follows:

	1875.	1874.	Inc. or Dec.		P. c.
Year ending Dec. 31:					
Atchison & Nebraska...	$270,955	$353,205	Dec..	$82,250	23.3
Expenses	270,683	270,325	Inc..	358	0.1
Net earnings	$272	$82,880	Dec..	$82,608	97.7
Earnings per mile	1,823	2,376	Dec..	553	23.3
Per cent. of expenses.	99.88	76.53	Inc..	23.35	30.5
Detroit, Lansing & Lake Michigan	739,704	807,697	Dec..	67,993	8.4
Expenses	528,807	491,407	Inc..	37,400	7.6
Net earnings	$210,897	$316,290	Dec..	$115,393	36.5
Earnings per mile	3,914	4,274	Dec..	360	8.4
Per cent. of expenses.	71.49	60.84	Inc..	10.65	17.5
International & Great Northern	1,408,303	1,572,388	Dec..	164,085	10.4
Expenses	792,339	824,919	Dec..	32,580	3.9
Net earnings	$615,964	$747,469	Dec..	$132,505	17.6
Earnings per mile	3,068	3,657	Dec..	589	16.1
Per cent. of expenses.	56.26	52.46	Inc..	3.80	7.2
South Carolina	1,229,303	1,365,972	Dec..	136,669	10.0
Expenses	780,798	850,515	Dec..	69,787	8.2
Net earnings	$448,575	$515,457	Dec..	$66,882	13.0
Earnings per mile	5,080	5,645	Dec..	565	10.0
Per cent. of expenses.	63.50	62.26	Inc..	1.24	2.9
Western Union	$1,160,430	$1,123,108	Inc..	$37,322	3.3
Expenses	830,288	768,164	Inc..	62,124	8.1
Net earnings	$330,142	$354,944	Dec..	$24,802	7.0
Earnings per mile	5,454	5,279	Inc..	175	3.3
Per cent. of expenses.	72.0	68.4	Inc..	3.6	5.3
Three months ending March 31:	1876.	1875.			
Midland, of Canada	$55,242	$44,710	Inc..	$10,532	23.6
Nashville, Chattanooga & St. Louis	481,187	425,308	Inc..	55,879	13.1
Expenses	288,876	306,197	Dec..	17,321	5.7
Net earnings	$192,311	$119,111	Inc..	$73,200	61.5
Per cent. of expenses.	60.03	72.00	Dec..	11.97	16.6
Philadelphia & Erie	705,128	631,149	Inc..	73,979	11.7
Expenses	511,118	465,955	Inc..	45,163	9.7
Net earnings	$194,010	$165,194	Inc..	$28,816	17.4
Per cent. of expenses.	72.49	73.83	Dec..	1.34	1.8
Pittsburgh, Titusville & Buffalo	197,038	.....	.....	.....	.....
Expenses	141,146	.....	.....	.....	.....
Net earnings	$55,892	.....	.....	.....	.....
Per cent. of expenses.	71.65	.....	.....	.....	.....
St. Paul & Sioux City	125,742	$70,817	Inc..	$54,925	77.5
Expenses	80,317	.....	.....	.....	.....
Net earnings	$45,427	.....	.....	.....	.....
Per cent. of expenses.	63.90	.....	.....	.....	.....
Sioux City & St. Paul	80,831	$33,678	Inc..	$47,153	140 0
Expenses	61,099	.....	.....	.....	.....
Net earnings	$19,732	.....	.....	.....	.....
Per cent. of expenses.	75.62	.....	.....	.....	.....
Month of February:					
Denver & Rio Grande	$30,508	$23,660	Inc..	$6,848	28.9
Expenses	14,625	13,279	Inc..	1,346	10.1
Net earnings	$15,883	$10,381	Inc..	$5,502	53.0
Per cent. of expenses.	47.94	56.12	Dec.	8.18	14.6
First Week in April:					
Denver & Rio Grande	$6,043	$5,656	Dec..	$613	9.1
Pacific, of Missouri	62,608	62,367	Dec..	759	1.2
Second week in April:					
Canada Southern	$48,385	$26,081	Inc..	$22,304	85.4
Chicago, Milwaukee & St. Paul	135,000	132,688	Inc..	2,312	1.7
Denver & Rio Grande	7,019	7,539	Dec..	520	6.9
Michigan Central	133,478	131,734	Inc..	1,744	1.3
Missouri, Kan. & Texas	55,409	45,095	Inc..	10,314	22.9
Ohio & Mississippi	76,912	72,090	Inc..	4,822	6.7
St. Louis, Iron Mountain & Southern	65,800	72,743	Dec..	6,943	9.5
Week ending April 7:					
Great Western	£16,130	£17,153	Dec..	£1,023	6.0

RAILROAD LAW.

Right to Levy on Property Held by a Receiver.

The right of a judgment creditor to levy on property of a railroad in the hands of a receiver is involved in the case of Winston against the Cairo & Vincennes Company, now on trial in the United States Circuit Court for Southern Illinois. It appears that the sheriff of White County, Ill., levied on and sold a locomotive belonging to the company, and also levied on another engine; but an injunction was obtained staying further proceedings. These levies were made to satisfy claims held by J. F. Tanguary, and now, as the engines are in the hands of a Receiver, he desires to obtain possession of them, or else that the Receiver may be ordered to pay his claims. The question is of considerable importance.

Damages for Injury to an Employe.

In Gildersleeve against the Fort Wayne, Jackson & Saginaw Company, a suit to recover damages for the killing of a brakeman while coupling two cars, one of which was of unusual construction, the Michigan Supreme Court says:

"A railroad employe was killed in coupling a car that was lower than the rest. He had fully understood the risk incident to the use of the car, but had not protested against its use to his employers, nor received from them any assurance that its use would be discontinued. The case was held not to be an exception to the rule that leaves the servant to bear the consequences of all the ordinary risks incident to his employment. * *

"Undoubtedly a servant has a right to repose confidence in the prudence and caution of his employer, and to rely upon his not putting him in charge of implements which, from improper construction or other cause, are so dangerous that a prudent man would not make use of them. If the servant is injured in consequence of this confidence being abused, he ought to be remunerated. But where the difficulties in the case are fully known to him, and he undertakes the employment, or continues in it without protest, and makes use of the implement without there being in the case anything in the nature of compulsion, it is a serious question whether his case is within the reason of recognized exceptions to the general rule. This, however, is a suggestion which will be passed over without discussion at this time. The car which was the cause of the injury in this case was not in itself dangerous or unfit for use. In coupling it with other cars peculiar caution was requisite, making it more liable to cause injury than would be a car of more modern construction. Its uses, therefore, made the employment more dangerous than it otherwise would be. * *

"Now any rule on this subject must be a general rule, and not one to be applied to railroad companies alone. It will be perceived that the risk in the case was such as would affect only the person employed, and that, whatever duty was imposed by the circumstances upon any one, could have had reference only to such persons. The case is consequently divested of any question except such as would concern the relation of master and servant, and the same rule would govern the case that would govern, were the question to arise between the farmer, the mechanic, and the manufacturer, and the person in his employ. And treating it as a question of such broad application, we do not perceive any ground upon which the plaintiff's case can be safely planted which comes short of this: that the employer is under obligation to his servants, under all circumstances, to make use of the safest known appliances and instruments, and is responsible for any failure to discard what is not such, and to supply its place with something safer. Any doctrine so far reaching as this would manifestly be destructive of the general rule, and would almost make the employer the guarantor of his servant's safety in his employ. But under any less serious responsibility it would be impossible to sustain a judgment against this defendant upon the sole ground of a failure to discontinue the use of this car."

THE SCRAP HEAP.

Railroad Manufactures.

The Baldwin Locomotive Works in Philadelphia recently turned out some heavy passenger engines for the Philadelphia, Wilmington & Baltimore road.

It is said that arrangements are being made to begin mining the iron ores of the James River district, at points near Lynchburg, Va., on an extensive scale, the ores to be shipped to the furnaces along the Ohio River.

The Cleveland Rolling Mill Company's new blooming mill is working very successfully.

The Indianapolis Railway Supply Company has elected F. L. Bartram President and N. T. James Secretary and Superintendent.

The Kingston Iron Works of Mr. John Leighton at Kingston, Tenn., have begun to make steel, and are meeting with much success thus far.

The Phœnixville (Pa.) Bridge Company has secured a contract for a new iron truss bridge of 100 feet span over Elk Creek near Elkton, Del., on the Philadelphia, Wilmington & Baltimore road.

The Shelby Iron Company has been shipping pig iron from its furnaces in Alabama to Mobile and thence by water to New Haven, Conn.

The Wyandotte (Mich.) Rolling Mill is running full time and has a number of orders on hand.

The Katahdin Furnace, in Maine, is in full blast and makes 12 tons of charcoal iron per day.

The Middlesex (Pa.) Rolling Mill was sold at assignee's sale April 10 and bought in for $1,020 by the Wheeler Iron Company, which holds a mortgage for $25,000 on the property.

The Neshannock Furnace at New Castle, Pa., is making about 400 tons of Bessemer pig per week. A new vertical blast engine, with cylinder 84 by 48 inches, made by McIntosh, Hemphill & Co., of Pittsburgh, was recently put in.

The blast furnaces in the Shenango Valley in Western Pennsylvania number 31 stacks, of which 11 are now in blast and 20 out.

The Pittsburgh & McKeesport Car Company's works at McKeesport., Pa., are running full time.

In the Mahoning Valley in Eastern Ohio the blast furnaces report eight stacks in blast and eleven out.

Porter, Bell & Co., at Pittsburgh, are building an engine for the Waynesburg & Washington road.

The Columbus (O.) Rolling Mill is at work on iron rails for the Columbus & Toledo road.

The Keystone Bridge Company has just completed an iron bridge over the Olentangy River, near Columbus, O., for the new Columbus & Toledo road.

The Cleveland Rolling Mill Company is at work on a large order for steel rails for the Columbus & Toledo road.

The American Metalline Company has now been running for about two months under the new management. Their metalline is now in use on the New York & Harlem, the Chicago, Burlington & Quincy shops at Galesburg, Ill., the Central Pacific shops at Sacramento, and on a number of stationary engines in New York and elsewhere.

Turning Up Chilled Car Wheels.

The Pittsburgh *American Manufacturer* says: "An improvement has been made for utilizing worn-out car wheels. The axle, with the wheels, is placed in bearings and made to revolve slowly. Two emery wheels, placed on a shaft revolving with great velocity, are fed slowly up to the face of the car wheels, grinding the surface true, and making the wheels as good as when they came from the foundry. Mr. G. W. Glass, Master Mechanic of the Allegheny Valley Railroad, is the inventor. Patent applied for."

Locomotives at the Centennial.

The Pennsylvania Railroad Company will exhibit at the Centennial the locomotive "John Bull," built by the Stephensons for the Camden & Amboy Railroad in 1831, and used on that road until 1866. On the first public trial of this engine Isaac Dripps was the engineman. The engine will be shown attached to two passenger cars which were built for this road about 1850.

The Baltimore & Ohio Railroad Company will send one of the old grasshopper engines, built by Phineas Davis, and described in these columns by Mr. Benj. H. Latrobe (March 8, 1873, page 91).

The Baldwin Locomotive Works will show two of the standard engines built for the Pennsylvania Railroad, "Class C," (American) locomotive weighing 73,000 lbs., and "Class I," consolidation engine weighing 92,000 lbs.

Trial of a Steam Street Car.

The Philadelphia *Times* of April 20 says:

"A trial of the Woodbury steam street car took place yesterday afternoon on the line of the Market Street Passenger Railway, in the presence of Mayor Stokley, the members of City Councils and a number of railway officials. The invited guests assembled at Forty-first and Haverford streets, and gave the car a thorough inspection. It will be remembered that the West End Passenger Railway Company contracted with the Centennial authorities to run noiseless steam cars through the Exhibition grounds. It was also designed to run cars of the same make upon the streets of West Philadelphia. The Remington street car was tried, but the machine, although it worked satisfactorily on a straight track, could not be taken around sharp curves, the test in the presence of the city authorities proving a failure. This difficulty is surmounted in the Woodbury steam car by a simple yet ingenious plan. The engine, which is vertical in its action, is built with the boiler upon a turn-table resting on the axles of the fore wheels. The rear wheels also act upon a turn-table. The engine room of the car is built around the machinery, and in turning a curve the engine and boiler turn with the fore wheels. The smoke and steam are consumed by exhaust pipes, so that one of the most serious objections raised against the introduction of steam in street cars appears to have been overcome. The car traveled yesterday from the depot at Forty-first and Haverford to the Centennial concourse, thence down Market street to the Public Buildings and back to the depot, without frightening any horses. The Legislature has been petitioned to permit the use of the cars on the Market street line to accommodate the public during the Centennial season. The Senate has already acted favorably upon the request. The assent of City Councils will be necessary, and it was to show the members of those bodies the practical workings of the new street car that the trial of yesterday was given."

An Old Rail.

An iron rail of T pattern, which has been in constant use on the Dayton & Michigan road for 19 years, was recently taken out of the track and will be sent to the Centennial.

The Wabash River Bridge Letting.

Proposals were put in at the letting, for the construction of an iron bridge over the Wabash River, for the Toledo, Wabash & Western Railway, at Attica, Ind., as follows:

American Bridge Co.	$91,450 00
Baltimore Bridge Co.	89,869 00
Detroit Bridge Co.	79,634 00
Keystone Bridge Co.	78,841 00
Phœnixville Bridge Co.	82,980 00
Watson Manufacturing Co.	77,900 00
Morrison & Fields	79,496 00

The bridge will consist of all through spans, and will be 1,800 feet long, divided in spans as follows: 10 spans 156 feet, one span 130 feet, and one span 110 feet. The specifications provide for a rolling load of 3,000 lbs. per lineal foot, in addition to 250 lbs. per foot estimated for track and floor, and weight of bridge proper. The contract was awarded to the Keystone Bridge Company, the bridge to be completed before Oct. 1, 1876.

A Great Mississippi Steamboat.

The following description of a new Mississippi River steamer the Grand Republic, is taken from the St. Louis *Globe-Democrat*. The Grand Republic started on her first trip from St. Louis Sunday, April 16:

"The hull is 350 feet in length, 101 feet width; beam 56 feet 8 inches; 54 feet 6 inches floor; hull, 10½ feet deep in the clear. The boiler deck is 30 feet long, with 20-foot promenade guards on each side and outside of the cabin. The main or saloon cabin is 270 feet in length, 30 feet in width and 15 feet in height. 'Great Scotts!' Let those who acknowledge a weakness for terpsichorean amusement think of it. Imagine gliding down the river and whiling away the hours of the evening in the giddy mazes of the dance in such a grand saloon as this! And then the cabin is very handsome, being in the Gothic style, ornamented with columns, scroll-work, etc., thoroughly ventilated, with extra high skylights, with many passage ways from the cabin to the main and upper decks. Here is grandeur, comfort, good taste and almost everything else requisite to the perfect enjoyment of life. The chimneys are 72 inches in diameter, 76 feet high from the hurricane deck, and 113 feet from the water to their tops. The shafts are 26 feet long, 18¼ inches in the journals, four flanges on each, twenty-two arms in the flanges; wheels, 38 feet in diameter, 18-foot bucket. She has capacity for 5,000 tons of cargo, and stowage room for 15,000 bales of cotton; will accommodate 400 first cabin and 500 deck passengers. Notwithstanding her immense size and carrying capacity, her draught of water is very light, being but thirty-three inches forward and fifty inches aft."

Prices of Steel and Iron Rails in France.

The *Moniteur des Interets Materiels*, of Belgium, says that at the recent lettings of contracts for rails by the great French companies the prices obtained were 245 francs per ton for steel, while iron rails were from 220 to 250 francs. It concludes that there is little prospect for any further large consumption of iron rails.

Manufacturing Claims Against Railroad Companies.

A curious case was tried recently in the Queens County Circuit Court, in Hempstead, N. Y., where a woman brought suit to recover $10,000 damages for injury to health and liability to fits alleged to be caused by injuries received in a collision on the Rockaway Branch of the Southern Railroad of Long Island in 1873. The woman's injuries and the state of her health were apparently proved by her own testimony and that of other witnesses, but when the defence was called the company's witnesses proved that the woman had not been upon either of the colliding trains at all, and that she had frequently said so, congratulating herself that she had missed one of the trains, which she intended to take. Verdict for the company.

A Queer Car-Load of Stock.

The Louisville *Courier-Journal* says that for some time past the clerks employed by the Jeffersonville, Madison & Indianapolis road at the freight depot corner of Fourteenth and Main streets in Louisville have been annoyed by goats that infest that immediate locality. Not satisfied with the other deviltment these sly rascals are guilty of, they chew all the tags off the cotton bales sent there for shipment, thereby causing the clerks a great deal of trouble in shipping the cotton. The other day the clerks surrounded about a dozen of the goats, and succeeded in driving them into a box-car alongside the platform and fastening the door. That night there was a car-load of goats going north, hitched to a freight train. The car was left at Indianapolis, and the next day the door was opened and the goats rushed out and made a raid through the town, upsetting and butting clerks, hands, boxes, bales, etc., as they escaped. Not being apprised of the shipment by way bill, of course the Indianapolis clerks chased them all over town, endeavoring to capture them, believing the company would have to pay for them as "lost freight" if they were not caught. By night all were caught and put back in the car. A despatch came to the depot man here: "Send on your way bill; got all the goats." A despatch went back in reply: "Don't want any; let 'em go." The race in Indianapolis was said to be very exciting.

A Ticket Scalper's Device.

The Indianapolis *Journal* says: "One of the Indianapolis ticket scalpers has immortalized his name by sending an agent to the superintendent of one of the Chicago lines, who, on the representation that he was the agent of a theatrical troupe, secured from the superintendent twenty-five tickets at a reduction of $1.25 on each ticket and a rebate of three passes. In twenty minutes after the tickets and passes were on sale at a ticket scalper's office on South Illinois street. The superintendent has notified his passenger conductors not to accept the passes, but the company will be obliged to honor the tickets."

A Wonderful Story.

The Paris *Journal des Debats*, ordinarily a grave and reliable paper, tells the following story, which readers are at liberty to believe if they see fit:

"At Ardennes, Belgium, recently, an express train struck a wagon laden with powder and exploded it. The shock was tremendous, lifting the whole train into the air, but it fortunately fell back on the track and sped on toward its destination. Not a passenger was injured, but all the windows were smashed and the curtains singed. The cars were seriously damaged."

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Editorial Announcements.

Passes.—*All persons connected with this paper are forbidden to ask for passes under any circumstances, and we will be thankful to have any act of the kind reported to this office.*

Addresses.—*Business letters should be addressed and drafts made payable to* THE RAILROAD GAZETTE. *Communications for the attention of the Editors should be addressed* EDITOR RAILROAD GAZETTE.

Advertisements.—*We wish it distinctly understood that we will entertain no proposition to publish anything in this journal for pay,* EXCEPT IN THE ADVERTISING COLUMNS. *We give in our editorial columns* OUR OWN *opinions, and those only, and in our news columns present only such matter as we consider interesting and important to our readers. Those who wish to recommend their inventions, machinery, supplies, financial schemes, etc., to our readers can do so fully in our advertising columns, but it is useless to ask us to recommend them editorially, either for money or in consideration of advertising patronage.*

Contributions.—*Subscribers and others will materially assist us in making our news accurate and complete if they will send us early information of events which take place under their observation, such as changes in railroad officers, organizations and changes of companies, the letting, progress and completion of contracts for new works or important improvements of old ones, experiments in the construction of roads and machinery and in their management, particulars as to the business of railroads, and suggestions as to its improvement. Discussions of subjects pertaining to* ALL DEPARTMENTS *of railroad business by men practically acquainted with them are especially desired. Officers will oblige us by forwarding early copies of notices of meetings, elections, appointments, and especially annual reports, some notice of all of which will be published.*

WHAT SHALL BE DONE WITH THE BANKRUPT RAILROADS?

This is a question that must be answered. It cannot be evaded. When a few years ago we were building seven thousand miles of railroad yearly other questions were pressed. Where shall money be had to complete these roads; how shall they be constructed; how equipped? These were important questions, doubtless; but it was not absolutely necessary to answer them directly. "Don't build them," was a possible response; as it finally was the actual one to scores of incomplete enterprises, of which the Northern Pacific and the Texas & Pacific are eminent instances. But now the roads are built and in operation and—thousands of miles of them—bankrupt and in the market for the benefit of their creditors, what shall be done with them? Here they are, tracks, bridges, sidings, stations, engines, cars, tangible objects ready to work and already working, more or less effectively. Now what is the best use to make of them? True, it is a misfortune that many of them were built—a misfortune not only to those who invested in them and to other railroad proprietors, but to the community at large, which could have its work done better and cheaper if they did not exist. All this was a reason for not bringing them into existence; but it was not heeded, and they do exist. Some of them bid fair in time to earn a fair profit on their cost; a few hardly pay working expenses; but most are capable of earning some net profit, perhaps not one per cent. nor one-half per cent. on the capital invested in them, yet something, and therefore we may be sure that they will continue to be worked in one way or another. Perhaps here and there a road may be abandoned, but generally we may say that the bankrupt railroads are a permanent part of our railroad system, having an important aggregate effect on the transportation business, and that therefore they cannot be ignored in any calculations for the future.

It may seem a waste of words to insist upon this, but we think not. Many of the proprietors and managers of old and solvent railroads took pains during the period of the construction of the now bankrupt roads to inform themselves as to their prospects for traffic and profits. It was incumbent on them to do this, because, in most cases, whatever traffic the new road got it must take from the old ones, and the prospects of one inevitably affected the prospects of the other. In some cases, moreover, an old railroad company would endeavor to discourage the construction of a new one that might divert valuable traffic, and so would take pains to make known the bad prospects of the new project. All this tended to give those interested in the old railroads an unfavorable opinion of the new ones, in most cases entirely justified, which was confirmed in the most positive manner when the latter became bankrupt. They believed and perhaps prophesied that the new railroads would ruin those who invested in them and injure to a greater or less extent the older lines, and the facts have supported them. But now that the roads are actually in operation their old conclusions that they ought not to be made seems to incline them to treat them as if they were not made.

Scores of railroads are now, or soon will be, in the market. A foreclosure sale usually turns the property in fee into the possession of the bondholders; but bondholders are not often anxious to work a railroad. They want a fixed income, without the responsibility of organizing a railroad management—a work in which they are usually inexperienced. Frequently they search and search in vain for a responsible corporation which will lease and work their road, and take it up themselves only after failing to find a lessor or purchaser.

Some of the bankrupt roads are systems of lines, and when sold the different lines and branches are sold separately under foreclosure of the several mortgages, as is the case now with the Toledo, Wabash & Western Railway, one branch of which has already been sold, while there must be several more sales before the entire system is disposed of. This complicates matters for the purchasing bondholders, who may find themselves in possession of an isolated branch line which was once an effective part of a well planned system.

Now, while so many railroads are in the market, it is important that methods should be devised and executed for making the best use of them. This is work in which the older railroad managers may be of the greatest value, to their own roads and to the community alike, and they will make a mistake if they ignore it. The natural tendency of foreclosure sales is to a greater division of railroads; but often the only way in which the lines of a territory can be managed effectively is by their concentration. A new road, built a few miles from and parallel to an older one, may have been a great failure as a competing line: it will be none the less so after foreclosure, but all the good there is in it may be got by working it in connection with the old road. In that way it may be made to earn most for itself, injure the old road least, and serve the community best.

Notwithstanding the many foreclosure sales of railroads within the past two years, many going at very low prices, scarcely any has been acquired by an old company. Most have gone into the possession of new companies formed of the old bondholders, and are still worked as independent roads, frequently under most unfavorable circumstances. They compete on unequal terms with stronger rivals, often lack the connections needed to do their work advantageously, and rarely are able to command an efficient administration such as has been developed by years of experience on an older and greater system. Some of these reorganized roads are already dangerously near a second bankruptcy, while many more, doubtless, are much less profitable than they might be made as parts of greater systems of roads.

In many cases, probably in most, the new and bankrupt lines can be best worked as parts of older and solvent systems. The old companies have the necessary organizations already formed, and the best knowledge of the resources of the country, and consequently of the value of the roads; and though it may be impossible to prevent the injury of the old line by the new parallel route, the injury will be less when both have a common management than when they compete. We might suppose, therefore, that usually the bankrupt lines would be secured by the old companies. We believe that this result is almost inevitable—or at least some union of the bankrupt roads into systems of lines, either in connection with solvent roads, or, where possible, by themselves; yet so far little progress seems to have been made in that direction. We have mentioned one obstacle, the disposition of railroad managers and the older railroad proprietors to ignore the existence, or, at least, to underestimate the effect on transportation business, of the bankrupt lines; another, doubtless, is the tendency of the proprietors of these latter roads to measure the value of their property by its cost instead of its capacity for earning an income. These people are not often skilled in estimating traffic, its probable growth, the relative productiveness of different kinds of traffic, and the expenses of conducting it. The New York & Oswego Midland bondholder will not believe that his road cannot earn interest on a few millions, when the New York Central, near by, earns 8 per cent. on many millions. He does not see that the working expenses on his road, with the small amount of traffic which it can command, are and must be more per unit of traffic than the gross receipt on the Central. Generally, those who have investments in bankrupt roads ascribe their misfortunes wholly or chiefly to the times and not to any inherent weakness in their roads, and perhaps they will not be undeceived until they have worked their roads for themselves for a time and come to bankruptcy a second time, or otherwise prove by unsatisfactory earnings that their lines cannot, at least for many years, earn anything like fair interest on their cost.

This country has passed through one period of consolidations, and a few years ago it seemed probable that our railroads would soon arrange themselves into large, harmonious systems, as has been the case in most other countries. Progress in this direction was arrested probably by the rapid construction of new roads, which made it impossible to form a complete system. That obstacle is no longer formidable, and at no distant day we may expect a resumption of the process of development. This will not necessarily take the form of consolidations and leases; but the only apparent alternative is a system of combinations, such as will make it possible to work the entire railroad system of the country, or of vast districts of the country, with an approach to uniformity, with greater regularity in rates, and with such a division of work among the several lines that each may do that and only that which it can do best, by which alone can the greatest economy and efficiency be attained; and so the railroads, as they actually exist, some wisely and some unwisely planned, be made to produce the best results of which they are capable—the greatest usefulness to the community and the greatest benefit to their proprietors.

CONFERENCE MEETINGS OF RAILROAD OFFICERS.

If any argument is needed for the organization of some co-operative system of experimental research to investigate subjects relating to railroad management, it can be found, we think, in the circulars which the committees of the Master Car-Builders' Association have recently issued to their members, and which have been published in the *Railroad Gazette*. These circulars contain some very frank avowals of what the committees *don't know*. Thus, one circular presents the inquiry whether "a locomotive can, under all circumstances, start and draw more cars with swinging-bolster trucks than with rigid frame trucks?" It would seem as if at this late day, after swing-motion trucks have been in such general use for so many years, and have cost so many thousands or rather hundreds of thousands of dollars more than trucks would have cost without swing motion, at least it ought to be perfectly clear whether the latter increases or diminishes the resistance of a car; and yet we doubt very much whether the members of the committee who issued the circular will receive a satisfactory answer to their inquiry, simply because no one has made the requisite experiments to determine the point at issue. Now, it must be kept in mind that this is not simply an interesting question in abstract mechanical science; it is one which has a direct value which can be represented in dollars and cents, and influences the profit and loss account on every railroad company's books. On the one hand, if swing trucks do not increase the resistance, then their additional cost over rigid trucks is, considered in this respect at least, clear loss; and on the other hand, if the resistance of the cars is increased, then it becomes a question whether that increase costs more or less than swing trucks. At any rate, without some trustworthy information on this subject, every railroad manager must act in the dark when he orders cars to be constructed. Whether the resistance is greater or less is a question of fact which could easily be determined, and of which railroad men are ignorant, simply because no one has ever taken the trouble to find out.

Another question in the same circular is, "What distance from centre to centre of axles would you recommend as the best?" This also could easily be determined by experiment. At the present time we do not know of any records of experiments which have been published which bear upon this point. That the resistance is materially influenced on both straight lines and curves by the distance between the centres of the axles is certain, but to what degree no one seems to know.

"How much leverage should be allowed on the brake levers to secure efficient braking and the preservation of wheels," is a question which, although its solution depends on clearly established principles, is nevertheless not very generally understood. The use of brakes operated by some unanimated power has obliged the inventors of such devices to study the theory of brakes more closely than was necessary so long as hand brakes alone were used. The general principle which has thus been established is, that if the pressure of the brake-shoe on a wheel is greater than the load resting on the wheel, the latter will slide on the track, and thus be injured. It therefore becomes a question of simple calculation of leverage if we know how much power the strongest brakeman will exert in turning a brake-wheel, and it is only necessary to keep the pressure of the shoes on the wheels less than the weight which rests on the latter.

The Committee on "Draw Bars and Buffers" ask

which is "the most economical for freight cars, wrought or cast-iron draw-bars," and what is "the proportion of failures of wrought and cast-iron draw-bars." The latter inquiry is the leading question, but we doubt very much whether the committee will be able to get any answers at all conclusive, simply because master car-builders do not keep accounts in sufficient detail to determine such questions.

Another question of a similar character which we wish every owner of railroad stock would ask the officers in charge of his property is the fifth on the circular before us, which is as follows: "Have you any information as to what it costs your company a year for links and pins, and if so, will you furnish it?" If the question was asked by some one in authority, he would, we feel sure, often be amazed at the ignorance of those who should know, and, perhaps, don't, because they are denied the services of the requisite clerical help,

The following are examples of other questions contained in the circulars before us: "Do you finish the wheel-seats of axles straight or tapered?" "What is the maximum pressure required to press the wheels on the axle?" "Do you find the flange wear of wheels in six-wheeled trucks to be the same in proportion as in four-wheeled trucks?" "Do you keep a record of the mileage made by wheels?" "Do you caliper wheels in order to have two wheels of the same circumference on the same axle?"

These are quoted in order to call attention to the vague nature of much of the opinion which prevails in relation to the construction of cars. An indefinite number of similar questions could be asked, and a railroad manager would, we believe, find it very profitable to discuss these subjects with his master car-builder and other officers of the road. We have before us a copy of a report of one of the meetings held by the Chief Engineer and the road masters on the Atlantic & Great Western Railroad. Such meetings are now held monthly on several different roads with most excellent results. For some reason, they seem to be confined chiefly to the officers in charge of the transportation and road departments, at least the published proceedings contain very little or no discussion of questions relating to the machinery and rolling stock of roads. The report referred to contains a discussion on the effect of mogul engines on the track. The following are the remarks of the different road masters of the sub-divisions: Mr. Ryan said, "They were the ruin of the Fourth Division;" Mr. McInarna, "Where I keep up my track with one man to the mile, I would want 2½ men if mogul engines were used;" Mr. Burgess, "I do not want them;" Mr. Bowen, "I could not keep my track in line with them. I had them hauling gravel last summer, and could count every joint on the road;" Mr. Thompson, "They were used on the Mahoning Division till nearly all the iron was spoilt. I think they are the worst thing that can be put on the track;" Mr. Newham, "They are very hard on track, and especially on curves;" Mr. Mulvey, "I do not like to see them; would rather see freight trains running thirty miles an hour;" Mr. Collopy, "I do not want them; they straighten out curves; after one of them passes you can see a straight piece in the curve;" Mr. Armstrong, "I think the best place for them is on a side track; they are a great injury to the main track; I would rather have a full train, with an ordinary engine, go over the track than a mogul engine without any train;" Mr. McInarna, "It is impossible to keep curves in line with mogul engines on the road."

This is very strong testimony against mogul engines, and yet it would be much more conclusive if the master mechanics of the road could have joined in the discussion and cross-examined the gentlemen who testified so decidedly against the use of this class of engines. Probably some who advocate the use of such engines will say that if they have the effect on the track which the road-masters say they do, then there must be something wrong about the construction or arrangement of the engines. At any rate, it would have been a point gained if the persons in charge of the engines could have been present and given in their testimony, or, better still, could thus have had their attention called to the defects of such engines. In this respect the practice of the Atlantic & Great Western Railroad officers in printing the proceedings of their meetings is a most excellent one, because, although from the report there is no indication that any of the officers of the machinery department were present, yet the publication of the proceedings will enable the master mechanics to learn the tenor of the proceedings, which, without such publication, would not be possible. Nevertheless, since the days of Magna Charta, and doubtless before, it has not been regarded as true wisdom to condemn without a hearing of both sides. So if the road men condemn the engines under the charge of the machinery department, in order to arrive as nearly at the truth as practicable, the machinery men ought to have a hearing. We say this, not because there is any evidence of injustice in the discussion referred to, but because in the conduct of such conferences one of their most important uses will be to establish a correct balance, as it were, between the different departments. It often happens that the men on one part of a long line are obliged to work at a very great disadvantage, simply for the want of the co-operation of those engaged on another section or department which a manager could easily secure if he could simply hear both sides at a meeting at which all parties could have a fair and full hearing. It is also true that the men on the road are often subjected to unnecessary hardship because some one in authority will not take the trouble "to put himself in their place," or because he belongs to that brutal class who take pleasure in the sufferings and hardships of others. Such evils a fair hearing of representatives of the men would help very much to put right.

Besides these advantages, meetings of this kind, if conducted by the managers of a railroad, would very soon show the limits of the knowledge of those whom he employs. We doubt if many master mechanics or car-builders would stand fire if catechised with the questions contained in the circulars which have been sent out by their respective associations; and if questions were asked such as that relating to the effect of the swing motion of trucks on the resistance of cars, probably the importance of finding out would be made apparent, and would result in much more earnest inquiry than they have ever thought it was worth while to make. Physicians who know—and many don't—advise patients to avoid the corners of sleeping rooms, and on seeing a sick person will, if possible, place his or her bed in the centre of the room, because they say impure air lurks in the corners. The same thing might be said of the loss and waste which, like disease, seem always ready to eat up the life blood of large business transactions. The chief sources of waste on railroads will nearly always be discovered in some unventilated corner. Free inquiry and constant discussion will expose and make known the decay caused by ignorance or the corruption which has moral causes for its foundation.

Periodical meetings of the officers of railroads, under the supervision and direction of the managers, would also have the effect of leading those who take part in them to see the direction which should be given to experimental research, because they would soon find the limits of their knowledge, or rather the limits of their means of acquiring knowledge, and the necessity for experimental research. In this way the discussions and investigations of those practically engaged in the management of railroads would lead them to co-operate with other persons whose labors take the direction of more purely theoretical investigation.

The First Quarter's Earnings.

March earnings are given in our table for 26 railroads having this year 13,211 miles of road, which is about 18 per cent. of the total mileage in operation in the country. The result for the month is less satisfactory than for previous months of the year, owing probably to disturbances by unfavorable weather, which have affected many roads, and probably increased their expenses to an extent even greater than they decreased their earnings. After all there was a slight increase over the earnings of the corresponding month last year, which, however, was so unsatisfactory a month that this slight gain does not make the earnings anything more than tolerable. The roads reporting have a mileage greater than last year in the aggregate by 2 per cent., while the earnings were 5.3 per cent. greater. The earnings per mile of road increased from $454 to $468—only about 3 per cent. Of the 26 roads reporting, ten show a decrease; five an increase of more than 20 per cent.

For the first quarter of the year, our table has returns from 27 companies with 13,569 miles of road. For this period the improvement over last year is marked. The mileage having increased 2½ per cent., there is an increase of earnings at the rate of 14½ per cent., amounting to $2,346,383, and the earnings per mile of road have increased from $1,244 to $1,387, or 11½ per cent. Only three of the 27 roads report a decrease for the quarter, and eleven have an increase of more than 20 per cent.

As we have said before, the increase in net earnings has doubtless been much greater in proportion than the increase in receipts, owing to the much lower working expenses, which were swelled in 1875 by the terrible winter weather. Last March was a trying month, as spring months often are, but, taking the three months together, the weather has been unusually favorable this year, as it was unusually unfavorable last year. The decrease in expenses is shown by the returns of several companies, an unusual number of which have reported their expenses for one, two or three months, as well as their earnings. Some comment has been made on this in the newspapers, and the greater publicity has been hailed as evidence of a change in corporation policy or of the influence of the New York Stock Exchange, which has recently expressed a desire for the regular receipt of such information. It is to be hoped that the policy will prove a permanent one, and may become general; but we fear that the chief reason for the new departure is the fact that railroad companies just now feel the need of all the credit they can gain; that the expenses last year were excessively large, and that, therefore, a comparison with this year's results makes an unusually favorable showing. Receipts were nothing to boast of either year, though much better this year than last, but expenses were unusually large last year and probably unusually small this. Net earnings, consequently, are very much larger this year than last; but after all it is doubtful if they have been really large. As, however, many investors and creditors care most to be assured that matters are becoming no worse with the companies in which they are interested, they can get a great deal of legitimate comfort out of the comparison with last year. The company which stood the trials of 1875 has nothing to fear from 1876, so far as we can see now.

The break in rates on east-bound freight which began last week is a serious matter, it is true, and may, if continued, greatly lessen the income of many important lines. But last year, we should bear in mind, there was a severer contest than this has yet become, which began earlier, involved quite as many lines, and passenger as well as freight traffic, and lasted for six months. Things will have to be very bad indeed if they become as bad as they were last year, and we have at least good returns for the first quarter to begin with in 1876, while the contrary was the case in 1875.

Moreover, there are some railroads which gain as well as some that lose by the unprofitably low rates between Northwestern cities and the seaboard. The reductions encourage shipments over the roads beyond the routes on which rates are reduced. This probably does not have a great deal of effect on the total bulk of traffic—not nearly so much, of course, as if the reduced rates were permanent, and could be counted upon in making plans for production; but it serves to turn considerable traffic from lines which lead to the lakes towards other lines passing south of the lakes. A railroad war in winter, however, would please the Northwestern railroads best (always provided that it be confined to Eastern roads). Anything which lessens the price of transportation between their eastern termini and the seaboard is still favorable to them, just as would be the extension of ocean navigation to Chicago and Indianapolis.

The first quarter, then, has closed favorably. The second one opens with a fair prospect for traffic, but, between the Northwest and the seaboard, with unsettled rates and a railroad war that may be destructive; though so far the parties to it seem disposed to fight so as not to hurt each other very seriously.

Foreign Railroad Notes.

Some one has made an estimate of the sums needed to carry out the recently proposed purchase of all the German railroads by the Imperial Government. In Prussia the contract by which the roads were chartered contains the terms on which the State may purchase them. These are 25 times the average dividend for the five years preceding the purchase. For the twelve oldest and greatest Prussian companies the average dividend of the five years past varies from 5¼ to 15 2-15 per cent., and in almost every case is greater than what the company is able to earn now. The face value of the shares of these twelve companies is $69,147,000; its present value at the prices now current on the stock exchanges, $72,065,000; but the price which the government would have to pay the stockholders to indemnify them, according to the above charter contract, is no less than $154,780,000, or $82,715,000 more than the current market price of their shares and more than 2¼ times their par value, and 2 1-7 times their market price. This would seem to account for the favor which the proposition to purchase is said to have met "in certain financial circles."

The Railroad Bureau of the German Empire has recently collected statistics of the railroads of the Empire, exclusive of those in Bavaria, over which the Empire exercises no control, for the year 1875. By this it appears that at the close of 1875 the figures were:

	Number of roads.	Miles.	Gross receipts in 1875. Per mile.
State railroads	15	5,637	$8,282
Private railroads worked by the State.	10	1,864	9,880
Private railroads worked by companies.	45	7,361	6,832
Total	70	14,862	$7,782

The mileage is of roads open for traffic. The increase during the year was 219 miles in State railroads, 104 miles in private railroads worked by the State, and 964 miles in private railroads worked by companies, or 1,287 miles in all—equivalent to an addition of 8.8 per cent. (The increase in the United States the same year was 2.1 per cent.) The increase in gross earnings meanwhile was 4.1 per cent., and the decrease in earnings per mile 3¼ per cent. This decrease in earnings per mile of road was 1.5 per cent. in the case of the State railroads, 0.74 per cent. in that of the private railroads, and 5.2 per cent, in that of the other private railroads—the latter including the most of the great number of new railroads constructed during the recent mania for railroad building, which affected Germany as well as the United States.

The statistics give the capital invested in nearly every road, but not the average per mile. The amounts vary for State railroads from $140,768 per mile for the Berlin Connecting road (a suburban line only 16 miles long), and $101,005 for the Saarbruck Railroad (109 miles long) to $27,037 for the Oldenburg State Railroad; for the private railroads under State management, from $104,118 Berg & Maerk and Hessian Northern (654 miles), to $26,338 for the Upper Silesian Mine Branch road; for

the private railroads worked by companies the capital expended per mile varies from $123,140 for the Cologne & Giessen (114 miles) to $15,124 for the Cottbus & Grossenhain (50 miles).

In a recent discussion on the maximum speed to be determined for an Austrian local railroad, the General Director Noerdling (the chief railroad officer of Austria) proposed to fix the speed at 9 miles per hour.

The statistics of the Prussian railroads for the year 1874, recently published, show that 3 per cent. of the passenger traffic (miles traveled) was of first-class passengers, 20.5 per cent. second-class, 42.1 per cent. third-class, 31.2 per cent. fourth-class, and 3.2 per cent. soldiers. The average passenger journey was 21 miles. There was an average of 259,121 passenger-miles per mile of road, equivalent to 355 persons carried each way, which is a very heavy traffic. The average receipt per passenger per mile was about 1.696 cents (in specie).

The freight traffic was at the rate of 470,443 ton-miles per mile of road, equivalent to 645 tons carried each way daily over the whole mileage—*not* a very heavy freight traffic. The average rate received per ton per mile was 1.82 cents gold in 1874, against 1.755 in 1873, 1.885 in 1872, 1871 and 1869, 2.015 in 1867, and 2.145 in 1865, the reduction in ten years having been 15 per cent. The rate in 1874 was equivalent to about 2.08 cents per ton per mile in American currency, which is about what the leading railroads from Chicago westward get. The working expenses for the entire traffic were 57.7 per cent. The proportions of the items of expenses to the whole were: Salaries and wages, 25 per cent.; other personal expenses, as traveling expenses, etc., 17.9 per cent.; office supplies, 6.2 per cent., maintenance of road, 11.9 per cent.; transportation expenses, 29.1 per cent.; other miscellaneous expenses, 9.9 per cent.

The Prussian railroads in 1874, 9,012 miles being in operation, had 6,154 locomotives of 1,776,067 horse-power, or 0.685 engine and 197 horse-power per mile of road, the average capacity of a locomotive being 288 horse-power. There were 9,067 passenger cars, 5,152 four-wheeled and the others six-wheeled. These cars had an average capacity of 19.3 seats per *axle*, and the car capacity was equivalent to 48.4 seats per mile of road. There were 132,497 freight cars, including 2,224 baggage cars. Of the total only 437 were eight-wheeled cars; 5,248 were six-wheeled; all the rest four-wheeled; 37,390, or about 28 per cent. of the whole, were covered merchandise cars, while 85,809, or 65 per cent. were open cars. There were 28 freight car *axles* per mile of road. The average capacity of freight cars was almost exactly five tons *per axle*. The average cost of locomotives had been about $12,500 each; the passenger cars cost just $800 *per axle*; the freight cars, $360 *per axle*.

The average performance of a locomotive during the year was 11,520 miles. There was an average of 21.8 trains over the whole mileage daily (10.9 each way), and the average train contained 46 axles and weighed (including engine, tender, cars and load) 286 tons. The average consumption of coal was 55 lbs. per engine-mile. On the average, passenger trains had but 22.8 per cent. of their capacity occupied, and freight cars 44 per cent. Repairs of passenger cars amounted to 1.6 cents *per axle* per mile run; of freight cars, 0.92 cents *per axle*; of locomotives, exactly 7 cents each.

In France tariffs have to be approved by the administration and are not legal without such approval. Generally, rates increase with the distance, but there are thousands of exceptions, just as there are here, where special cases are met by what are called "differential tariffs," by which special rates, usually more or less reduced from the ordinary rates, are made for special articles of freight over specified routes. These differential tariffs, of course, like the regular ones, must be approved by the administration. A recent decision of the Court of Cassation shows how strictly the application of such tariffs is limited. From the port of Havre to the town of Chalonnes-sur-Loire there was a special tariff on lard. The shortest route is by way of Rouen and Serguigny, 270 miles, and the table showing the special tariff rates stated this as the distance and gave the rate as 20 francs a ton. Now there is another route between Havre and Chalonnes-sur-Loire, chiefly owned by the same company; and in the case in point the short line could not be used, owing to the destruction of a bridge, and the goods were shipped by the longer line. The court decided not only that the special tariff could not be applied to the longer route, but that an addition to the rate in proportion to the additional length of line would be illegal. The special tariff could be applied only to the identical route for which it was made.

Mr. Spee, a Belgian engineer, has published a pamphlet on the working of street railroads by mechanical power, in which he reviews all the methods that have been proposed for this purpose, so far as known to him, going back as far as 1770; but most of the space is given to machines proposed since 1872. Calculations are given of the resistances to be overcome on grades of ¼ to 5 per cent., which serve to show difficulties not often appreciated by those who discuss this problem. The different English and American systems which have been tried and abandoned are described, and the reasons of their failure indicated. Mr. Spee concludes by saying: "We have now passed in review the principal machines tried or recommended to take the place of the muscular power of animals; these machines are numerous, and include all the methods imaginable; but none of them solve the problem completely. To-day we have two groups: the first includes steam engines with fire-boxes; the second those with power stored up, such as hot water, compressed air, etc. In both cases the motive power may be independent of the car or be incorporated with it."

Technical Conventions.

The annual convention of the American Railway Master Mechanics' Association will be held this year in Philadelphia, beginning Tuesday, May 16. Arrangements have been made for the accommodation of members at the Hotel Aubrey, which is located in West Philadelphia, near the Pennsylvania Railroad depot.

RAILROAD EARNINGS IN MARCH.

Name of Road.	Mileage. 1876.	1875.	Inc.	Dec.	Per c.	Earnings. 1876.	1875.	Increase.	Decrease.	Per c.	Earnings per Mile. 1876.	1875.
Atchison, Topeka & Santa Fe	711	507	204	.....	40.2	$180,000	$104,052	$75,948	.....	73.0	$253	$205
Burlington, Cedar Rapids & Minnesota	424	424	.....	.....	.....	105,813	97,218	8,595	.....	8.9	250	229
Cairo & St. Louis	146	116	30	.....	25.9	19,347	15,602	3,745	.....	24.0	133	135
Canada Southern	452	452	.....	.....	.....	165,431	83,060	82,371	.....	99.1	366	184
Central Pacific	1,315	1,293	22	.....	1.7	1,133,000	1,136,263	.....	$3,263	0.3	862	879
Chicago & Alton	650	650	.....	.....	.....	363,719	363,627	.....	9,908	2.7	544	560
Chicago, Milwaukee & St. Paul	1,399	1,399	.....	.....	.....	567,388	502,765	64,623	.....	12.9	406	359
Cincinnati, Lafayette & Chicago	75	75	.....	.....	.....	30,051	30,274	.....	223	0.7	401	404
Denver & Rio Grande	120	120	.....	.....	.....	31,306	26,500	4,806	.....	18.1	261	227
Hannibal & St. Joseph	296	296	.....	.....	.....	163,575	138,779	24,796	.....	17.9	553	469
Illinois Central	1,109	1,109	.....	.....	.....	605,494	595,519	9,975	.....	1.7	546	537
Indianapolis, Bloomington & Western	344	344	.....	.....	.....	103,513	104,750	.....	1,237	1.2	301	305
International & Great Northern	458	458	.....	.....	.....	97,531	105,599	.....	8,068	7.6	213	231
Kansas Pacific	761	761	.....	.....	.....	220,097	255,474	.....	35,377	13.1	289	336
Michigan Central	804	804	.....	.....	.....	583,136	611,211	.....	28,075	4.6	725	760
Missouri, Kansas & Texas	786	786	.....	.....	.....	245,814	233,095	12,719	.....	5.5	313	297
Nashville, Chattanooga & St. Louis	342	342	.....	.....	.....	145,980	136,218	9,762	.....	7.2	427	398
Ohio & Mississippi	615	615	.....	.....	.....	314,382	309,908	4,474	.....	1.4	511	504
Philadelphia & Erie	288	288	.....	.....	.....	247,019	262,286	.....	5,267	2.1	858	876
St. Louis, Alton & Terre Haute—Belleville Line	71	71	.....	.....	.....	42,272	49,358	.....	7,086	14.3	595	695
St. Louis, Iron Mountain & Southern	685	685	.....	.....	.....	299,000	275,910	23,090	.....	8.4	436	403
St. Louis, Kansas City & Northern	504	504	.....	.....	.....	274,358	243,991	30,367	.....	12.4	544	484
St. Louis & Southeastern	349	349	.....	.....	.....	85,331	89,900	.....	4,569	5.1	245	258
St. Paul & Sioux City	122	122	.....	.....	.....	42,522	28,392	14,130	.....	50.0	349	233
Sioux City & St. Paul	148	148	.....	.....	.....	27,791	14,159	13,632	.....	96.0	188	96
Toledo, Peoria & Warsaw	237	237	.....	.....	.....	102,737	72,806	29,932	.....	41.1	434	307
Totals	13,211	12,955	256	.....	.....	$6,186,607	$5,876,715	$412,965	$103,073	.....	$468	$454
Total increase	.....	.....	256	.....	2.0	.....	.....	309,892	.....	5.3	.....	.....

RAILROAD EARNINGS, THREE MONTHS ENDING MARCH 31.

Name of Road.	Mileage. 1876.	1875.	In.	Dec	Per c.	Earnings. 1876.	1875.	Increase.	Decrease	P.c.	Earnings per mile. 1876.	1875.	Inc.	Dec.	P.c.
Atchison, Topeka & Santa Fe	643	507	136	....	26.8	$441,549	$251,121	$190,428	.....	75.8	$687	$495	$192	.....	38.8
Burlington, Cedar Rap. & Minn.	424	424	.....	.....	.....	299,469	262,484	36,985	.....	14.1	706	619	87	.....	14.1
Cairo & St. Louis	146	116	30	....	25.9	60,010	44,976	15,034	.....	33.4	411	388	23	.....	5.9
Canada Southern	452	452	.....	.....	.....	430,333	212,049	218,284	.....	103.0	952	469	483	.....	103 0
Central Pacific	1,315	1,293	22	....	1.7	3,094,000	3,006,360	87,640	.....	2.9	2,353	2,325	28	.....	1.2
Chicago & Alton	650	650	.....	.....	.....	1,006,166	1,011,774	.....	$5,608	0.6	1,548	1,557	.....	$9	0.6
Chicago, Milwaukee & St. Paul	1,399	1,399	.....	.....	.....	1,612,388	1,292,139	320,249	.....	24.8	1,153	924	229	.....	24.8
Cincinnati, Lafayette & Chicago	75	75	.....	.....	.....	98,929	91,474	7,445	.....	8.1	1,319	1,220	99	.....	8.1
Denver & Rio Grande	120	120	.....	.....	.....	94,613	70,524	24,089	.....	34.2	788	588	200	.....	34.2
Hannibal & St. Joseph	296	296	.....	.....	.....	463,727	349,597	114,130	.....	32.6	1,567	1,181	386	.....	32.6
Illinois Central	1,109	1,109	.....	.....	.....	1,802,067	1,668,231	133,836	.....	8.0	1,625	1,504	121	.....	8.0
Indianapolis, Bloom. & West'n	344	344	.....	.....	.....	379,549	318,116	61,432	.....	19.3	1,103	922	181	.....	19.3
International & Gt. Northern	458	458	.....	.....	.....	354,063	346,672	7,391	.....	2.1	773	757	16	.....	2.1
Kansas Pacific	761	761	.....	.....	.....	633,645	627,332	6,313	.....	1.0	833	824	9	.....	1.0
Michigan Central	804	804	.....	.....	.....	1,650,372	1,553,736	96,636	.....	6.2	2,053	1,933	120	.....	6.2
Missouri, Kansas & Texas	786	786	.....	.....	.....	756,996	628,009	128,987	.....	20.5	963	799	164	.....	20.5
Nashville, Chattanooga & St. L.	342	342	.....	.....	.....	481,188	425,309	55,879	.....	13.1	1,407	1,244	163	.....	13.1
Ohio & Mississippi	615	467	148	....	31.7	923,216	800,880	122,336	.....	15.3	1,501	1,715	.....	214	12.5
Pacific, of Missouri	426	426	.....	.....	.....	900,223	697,609	202,614	.....	29.0	2,111	1,638	473	.....	29.0
Philadelphia & Erie	288	288	.....	.....	.....	705,128	631,149	73,979	.....	11.7	2,448	2,191	257	.....	11.7
St. Louis, Alton & Terre Haute, Belleville Line	71	71	.....	.....	.....	120,273	162,286	.....	42,013	25.9	1,694	2,286	.....	592	25.9
St. Louis, Iron Mt. & Southern	685	685	.....	.....	.....	938,306	806,611	129,695	.....	16.0	1,370	1,180	190	.....	16.0
St. Louis, Kansas City & North'n	504	504	.....	.....	.....	803,336	648,234	155,102	.....	23.9	1,594	1,286	308	.....	23.9
St. Louis & Southeastern	349	349	.....	.....	.....	249,821	254,523	.....	4,702	1.8	716	729	.....	13	1.8
St. Paul & Sioux City	122	122	.....	.....	.....	125,742	70,817	54,925	.....	77.5	1,031	580	450	.....	77.5
Sioux City & St. Paul	148	148	.....	.....	.....	80,831	33,678	47,153	.....	140 0	546	228	318	.....	140.0
Toledo, Peoria & Warsaw	237	237	.....	.....	.....	314,185	206,051	108,134	.....	52.4	1,326	869	457	.....	52.4
Totals	13,569	13,233	336	....	.....	18,820,124	16,473,741	$2,396,708	$52,323	.....	$1,387	$1,244	$143	.....	11.5
Total increase	.....	.....	336	....	2.5	.....	.....	2,346,383	.....	14.2	.....	.....	.....	.....	.....

The Master Car-Builders' Association will hold its annual meeting in New York, Wednesday, June 14.

The annual convention of the American Society of Civil Engineers will be held in Philadelphia, June 13.

Record of New Railroad Construction.

This number of the *Railroad Gazette* has information of the laying of track on new railroads as follows:

Cincinnati, Wabash & Michigan.—Extended from Summitville, Ind., southward 7 miles to Alexandria.

Southern Pacific.—The *Los Angeles Division* is extended southeastward 36 miles to Seven Palms, 134 miles east by south from Los Angeles, Cal.

This is a total of 43 miles of new railroad, making 399 miles completed in the United States in 1876, against 208 miles reported for the same period in 1875, 347 miles in 1874, and 598 in 1873.

SOME SCIENTIFIC ADVERTISING is attempted by the Globe Rolling Mill of Cincinnati, it having issued a neat little pamphlet as an advertisement, which has a new feature in it, or rather a feature new in such literature. It contains some lithographed plates representing test pieces of its iron, and, as far as is possible by lithography, the appearance of the fracture. Two of the test pieces are of the form employed in Professor Thurston's testing machine. In the back part of the book is a large diagram showing an "automatic record of the strength, elasticity, elastic limit, stiffness, ductility and resilience" of the test pieces, which was made on the testing machine referred to. Preceding this diagram is a very brief explanation of it. This explanation is, however, entirely too brief, and, unless a person had a knowledge derived from some other source than from the explanation, it would be impossible to understand the nature or object of the diagram from the pamphlet. If some manufacturer would have a short treatise on the strength of materials and a clear explanation of the action of testing machines, and then give strain diagrams of the iron or steel he manufactures, he would be doing the public, or at least that portion of it which is interested in this subject, a valuable service and probably would be putting money for advertising where it "would do the most good."

A NEW LONDON UNDERGROUND RAILROAD has lately been opened, which, like the others, serves chiefly to unite the termini of other railroads, and has cost enormously. The new line is the East London Railway, and it extends from Liverpool street station on the north side of the Thames by an approximately semi-circular path through the old Thames Tunnel to a junction with the South London Railway at Peckham, a distance of 6¼ miles, passing by a tunnel for 600 feet under the London Docks as well as under the Thames itself. This line of 6¼ miles, on which much work remains to be done, has cost so far about £3,200,000, or at the rate of $2,816,000 in our currency per mile. The Thames Tunnel, which originally cost £460,000, was bought by the East London for £180,000, so that even this company's immense expenditure does not represent the original cost of its property.

THE CASPIAN SEA, which, having a basin of its own like the Great Salt Lake, only a much greater one, is isolated from the rest of the world so far as water communication is concerned, is to be united with the European railroad system. The Poti & Tiflis Railroad Company has received a concession from the Russian Government for the extension of its line from Tiflis to the Caspian Sea at Boku, 345 miles, and will begin its construction immediately.

THE WESTERN RAILROAD ASSOCIATION requests us to say that Mr. J. B. Safford's reference "by permission" to its Attorney, in his advertisement on page IX. of the *Railroad Gazette* of April 7 was entirely without authority.

General Railroad News.

ELECTIONS AND APPOINTMENTS.

Pacific, of Missouri.—General Manager Garrison announces the following appointments: General Freight Agent, James A. Hill; Auditor, C. L. White; General Passenger Agent, E. A. Ford; Cashier, John L. Dearborn; Master Mechanic, John Hewitt; Master of Bridges and Buildings, R. M. Peck; General Roadmaster, L. L. Keller; Superintendent Eastern Division, Warder Cummings; Superintendent Western Division, H. Hale; Paymaster, J. W. King; Supply Agent, W. J. Anderson.

Texas & Pacific.—Col. H. W. Stockings is now Superintendent of the Transcontinental Division, succeeding Geo. L. Sands, resigned.

Indiana North & South.—The following officers were recently re-elected for the ensuing year: President, Dr. E. B. Thomas; Vice-President, J. G. Ackelmire; Secretary, C. S. Andrews; Superintendent, M. W. Cook.

Red Line Fast Freight.—Mr. S. D. Caldwell has been appointed General Manager. He recently held the same position on the Hoosac Tunnel Line.

Tyler Tap.—Dr. W. J. Goodman, of Tyler, Tex., has been chosen Vice-President.

St. Louis, Kansas City & Northern.—Mr. T. H. Dearborn has been appointed General Agent of this company and the Kansas City, St. Joseph & Council Bluffs road, forming the "Omaha & St. Louis Short Line." His office is at No. 3 New Montgomery street, San Francisco, Cal.

South Carolina.—At the annual meeting in Charleston, S. C., April 12, the following directors were chosen: Wm. J. Magrath, L. D. de Saussure, J. P. Trenholm, John Hanckel, Andrew Simonds, George W. Williams, Henry Gourdin, J. P. Southern, Francis J. Pelzer, Daniel Tyler, Wm. A. Courtenay, James S. Gibbes, Richard Lathers, Samuel Sloan, Moses Taylor. There is no change from last year. The board re-elected Wm. J. Magrath President.

Berkshire.—At the annual meeting recently the following directors were chosen: John H. Coffing, David Leavitt, B. W. Patterson, L. G. Robbins, D. R. Williams. The board re-elected John H. Coffing President; D. R. Williams Clerk and Treasurer. The road is leased to the Housatonic Company.

Montclair & Greenwood Lake.—Mr. J. Wyman Jones has been chosen President *pro tem.* in place of Jacob F. Randolph, resigned, and will serve until the annual meeting in May.

Valley, of Ohio.—At the annual meeting in Cleveland, O., April 19, the following directors were chosen: A. B. Stone, L. V. Brockins, W. J. Boardman.

Erie.—Mr. W. P. Shearman, for some time past Cashier, has been appointed Assistant to the Receiver. Mr. Guthrie succeeds Mr. Shearman as Cashier.

Atlantic & Pacific Telegraph.—At the annual meeting in New York, April 26, the following board of trustees was chosen for the ensuing year: Oliver Ames, Elisha Atkins, Benjamin E. Bates, Albert B. Chandler, F. Gordon Dexter, Sidney Dillon, G. M. Dodge, Thomas T. Eckert, Jay Gould, Wm. H. Guion, C. P. Huntington, Christopher Meyer, S. M. Mills, J. H. Mortimer, C. J. Osborne, G. G. Sampson, James D. Smith, W. J. Syms and Henry M. Taber.

PERSONAL.

—Mr. Foster Blodgett, shortly after the war a leading Georgia politician, who was for several years Superintendent of the Western & Atlantic Railroad, when it was worked by the State of Georgia, was recently arrested in Atlanta on charge of cheating the State in various ways. He gave bail to appear for trial. The charges against him have been common talk for years, but no steps have been taken to press them until now, and it is openly charged that even now no trial will be had, for various personal and political reasons.

—It is reported that Master Mechanic Blackburn, now in charge of the Jersey City shops of the Erie Railway, will be transferred to Susquehanna.

—Mr. Isaac D. Barton, at one time Superintendent of the Long Island Railroad, then for a time of the United States Rolling Stock Company, afterward of the Atlantic & Great Western, and recently of the Flushing, North Shore & Central, is now engaged in working up a project for a narrow-gauge road on Long Island from Brooklyn to Huntington.

—Col. James J. Conner, who died at his residence in Pottsville, Pa., April 20, was one of the first coal operators in the Schuylkill region, and, with several other mine owners, built and owned the Mahanoy & Broad Mountain Railroad.

—Mr. George L. Sands, formerly Superintendent of the Transcontinental Division, Texas & Pacific Railroad, has resigned and gone to Brazil, where he intends to reside.

—Mr. Jacob F. Randolph, President, and Mr. Willard Richards, Superintendent of the Montclair & Greenwood Lake Railroad, have resigned their respective positions, owing, it is said, to disagreements with other officers of the company and especially with the Treasurer.

—The Attorney General of Massachusetts has given his opinion that Mr. John Cummings, who is one of the State directors of the Boston & Albany and also a member of the State Senate, cannot legally continue to hold both positions.

—Mr. S. S. Parker has resigned his position as General Passenger and Ticket Agent of the Louisville, Cincinnati & Lexington road, to take effect May 1.

—James C. Walkley has resigned his position as President of the Connecticut Valley Railroad Company on account of ill health. He has been President since the first organization of the company.

—Dr. E. A. Crudup, a well known citizen of North Carolina and at one time President of the Raleigh & Gaston Company, died at his residence in Franklin County, N. C., April 15.

—Mr. John Sibson, General Freight Agent of the Marquette, Houghton & Ontonagon Railroad, died in Marquette, Mich., April 16. Mr. Sibson was highly esteemed for his social qualities as well as his business ability.

OLD AND NEW ROADS.

Spartanburg & Asheville.

As already noted, the line from Spartanburg, S. C., to the foot of the mountains is graded, and the rest of the road over the Blue Ridge to Asheville, N. C., is under contract. The President of the company is now in New York for the purpose of making arrangements for the rails for 30 miles of the road, and also to raise money to push the rest of the grading. The work thus far has been done entirely with the proceeds of local stock subscriptions.

Cumberland & Pennsylvania.

This road has been heretofore owned nominally by a separate corporation, although 14,905 out of its 15,000 shares of stock were owned by the Consolidation Coal Company, and the other shares were, we believe, held in its interest, being used to qualify a sufficient number of directors. Now, however, it appears by a deed executed March 2, but only recently recorded, that the Cumberland & Pennsylvania Railroad Company has conveyed all its road franchises and other property to the Consolidation Coal Company. The consideration is that the Consolidation Company pay $10 in cash, assume all the bonded and other debt, and surrender and cancel its 14,905 shares of stock.

The Consolidation Company, whose charter gives it power to own railroads as well as to mine coal, has assumed formal possession of the road, which will hereafter be known as the Cumberland & Piedmont Railroad.

This transfer is doubtless made for the purpose of evading the law recently passed by the Maryland Legislature for the purpose of reducing the rates on coal over the road. Naturally the other coal companies, in whose interest the law was passed, are much disturbed, and it is understood that, at their instance, the Attorney-General of Maryland will begin legal proceedings either to set aside the transfer, or to enforce the law, on the ground that the transfer did not relieve the road from its operation. There is, however, a later report that a compromise may be arranged.

Boston & Albany.

The committee of the Massachusetts Legislature which has been investigating the charges made by State Director Hayes has made three reports. The majority report, while approving the general management, finds serious fault with the Ware River lease and with the conduct of President Chapin and directors Kimball and Sargeant in conducting the negotiation of that lease while large holders of the stock of the Ware River Company. The fact that Mr. Chapin secured the control of the Ware River road in the interest of the Boston & Albany is allowed, but the committee think that he placed himself in a very equivocal position. Mr. Kimball is blamed for voting on the State stock in favor of confirming the lease. It is recommended that the Attorney-General should be instructed, with the approval of the Governor and Council, to bring the whole subject before the proper legal tribunal for adjudication.

The first minority report reaches the same conclusion, but by somewhat different reasoning. The third report, signed by two members, finds all the charges of Mr. Hayes supported and the management deserving of severe censure.

There is likely to be much discussion over the report.

A dispatch to the Boston *Herald* says the business of the Boston & Albany Railroad for the last six months shows a falling off of nearly $300,000, and about an equal decrease in expenditure. A 5 per cent. dividend will be declared.

Hannibal Bridge.

On the night of April 17, a tug-boat while trying to pass the draw of the Hannibal bridge over the Mississippi, the river being very high and the current very strong, was forced against a pier and, after hanging there for a time, swung round against the bridge, carrying away a span 250 feet long. The damage done is estimated at $20,000, independent of that resulting from the stoppage of business.

Chicago, Burlington & Quincy.

By the giving way of the Sny levee on the Mississippi below Quincy, the Hannibal Division of this road has been badly damaged, the road-bed being badly washed in several places and travel stopped for several days.

Auction Sales of Railroad Securities.

In New York, April 19, New York & Oswego Midland Western Extension first-mortgage bonds sold for $3.50 per $1,000 bond; Burlington, Cedar Rapids & Minnesota, Muscatine Division bonds, brought 13; Portland & Ogdensburg, Vermont Division joint mortgage, 50.

New York Central & Hudson River.

The Albany *Argus* says: "A new order went into effect Monday, which causes considerable stir among the Hudson River Railroad employes who reside on the other side of the river. Hereafter all freight engines will run to West Albany, and all passenger engines will be housed on this side of the river. Probably less than a dozen men of the large number of engineers, firemen, flagmen, etc., heretofore employed at East Albany, will remain there. It is said that the change will effect nearly 150 men."

Atlantic, Mississippi & Ohio.

President Mahone has issued the following circular: "This is to assure the agents and employes that, amid all the troubles and embarrassments which have so suddenly and unnecessarily been thrust upon the company, their claims for services rendered have received, and will continue to receive, that proper consideration which is demanded by the importance and dignity attached thereto. To secure this end, in the arrangements recently sought to be made on its behalf, compromises and concessions were made, which otherwise would not have been considered admissible.

"No matter what may be the result arising from these complications their claims are secure, and will ultimately be paid in full; meanwhile they may confidently believe that a due proportion of its earnings shall be devoted to their gradual liquidation.

"In a few days the March pay-rolls will be discharged in full."

A report is current that Mr. James H. Platt, Jr., will be appointed Receiver, which, however, does not appear to rest on very solid grounds. The reasons urged for Mr. Platt's appointment are chiefly of a political nature, the road being an important element in the politics of Southside Virginia. Mr. Platt has no railroad experience.

Dividends.

Dividends have been declared by the following companies:

Concord, 5 per cent., semi-annual, payable May 1.

Boston & Providence, 4 per cent., semi-annual, payable May 15.

Boston & Maine, 3 per cent., semi-annual, payable May 15. This is a fall of one per cent. from the usual dividend.

Iowa Railroad Land Co., 1 per cent., quarterly, payable May 1.

Railway Equipment Trust of Pennsylvania, 2 per cent., quarterly, payable May 1.

Car Trust of Pennsylvania, 1½ per cent., quarterly, payable May 1.

Manchester & Lawrence, 5 per cent., semi-annual, payable May 1.

Meetings.

The following companies will hold their annual meetings at the times and places given:

Chicago & Northwestern, at the office in Chicago, June 1. Transfer books will be closed from April 28 to June 5. Some of the bonds of this company carry notes.

New York & Harlem, at the office in the Grand Central Depot, New York, May 16, at noon. Transfer books will be closed from April 27 to May 17.

Central Vermont, at the office in St. Albans, Vt., May 17, at noon.

Colorado Central, at the office in Golden, Cal., May 18, at 11 a. m.

Central, of New Jersey, at the office in Jersey City, May 5, at noon.

Central, of Iowa.

Receiver Grinnell in his first monthly report says: "The order granting a railroad extension northward and the establishment of sundry new stations give promise of greater facility in moving trains, and a considerable local increase of business, while the new line reaching Oskaloosa from the east, and a reduction of their freight rates, will of necessity tend to a reduction of our revenue. A large shipment of ice south has added to freight earnings, but not more than compensating for a reduction in coal-tonnage, owing to the mild winter.

"The reduction of pay did not deprive the company of the services of a single needed employe, and it is a pleasure to mention the cheerful co-operation of the heads of departments and employes generally with the Superintendent in contributing to the value of this property.

"Orders made by the Court for payment of claims have been obeyed, so far as the treasury would allow, which will be shown in the detailed financial statement."

He has endeavored to secure a reduction in the assessment of the road for taxation, with but partial success. A large outlay is needed for fences and track repairs which will make the strict economy in other matters necessary.

Baltimore & Ohio.

A second track is to be laid from Pittsburgh to Connellsville, 57 miles, on the Pittsburgh Division, the traffic on that section of the line being so large as to require the additional accommodation. A good deal of grading for this second track has been done at different times, and the cost, as far as the road-bed is concerned, will not be very great.

St. Louis, Iron Mountain & Southern.

This company has applied to the St. Louis County Court for the necessary approval of the line on which it purposes building a track to connect its present terminus with the Union Depot in St. Louis. The matter is now under consideration.

Lafayette, Muncie & Bloomington.

In the United States Circuit Court in Indianapolis, Judge Drummond has continued the injunction against the completion of the crossing over the Indianapolis, Cincinnati & Lafayette road near Lafayette. The judge said that if the companies should fail to come to an agreement shortly he would appoint an expert to examine and report on the crossing, and would decide the matter himself.

The ballasting of the road is nearly completed, and through trains can be put on to Lafayette as soon as the crossing matter is decided.

Galveston, Harrisburg & San Antonio.

The Galveston *News* of April 14 says: "Col. H. B. Andrews, Vice-President of the Galveston, Harrisburg & San Antonio Railroad, accompanied by the Chief Engineer, Major James Converse, is now in San Antonio letting out contracts for grading the space between that city and the present terminus of the road. He says the entire grading will be completed by August 1. The entire road to Kingsbury has been let for grading excepting six miles."

Canadian Pacific.

It is announced that the Government will soon call for proposals for the immediate excavating and grading that portion of Thunder Bay Branch Pacific Railway extending from Cross Lake to Rat Portage; also for tracklaying on a portion of the same branch.

New Brunswick Railroad Subsidies.

Previous to its adjournment the Canadian Parliament passed the resolution authorizing the Government to give the iron rails taken up from the Intercolonial track to make way for steel to certain branch roads in New Brunswick. The lines named are: The road to the deep-water terminus at Dalhousie; the road from Chatham passing the Intercolonial toward Fredericton; the road from Richibucto harbor to the main line, and the road crossing the counties of Queen's, Sunbury and York, to Fredericton; also St. Martin's road and that from Parrsboro' to Pugwash.

Utica & Black River.

The bill authorizing this company to change its corporate name passed the New York Legislature but was afterwards recalled, it being known that the Governor would veto it on the ground that it was not within the authority of the Legislature to authorize such change.

New York, Utica & Ogdensburg.

Some time since the New York Supreme Court appointed Wm. H. Newman Receiver of the property of this company, which has been in existence several years, but has never succeeded in completing any of its proposed road. The Court has now authorized the Receiver to bring suits against subscribers to the stock, to recover the amounts unpaid on their subscriptions.

St. Joseph & Denver City.

It is expected that the sale will be confirmed next week, and the new company will be organized as soon as possible thereafter.

In the new company holders of Eastern Division bonds will receive new 7 per cent. bonds for the face of the old bonds and about 20 per cent. of the accrued interest, and new stock to about one-half of the amount of their old bonds. The new bonds will, for the first five years, have the coupons payable only *pro rata* as the income of the road will permit. Western Division bondholders will receive for each $1,000 bond and accrued interest $450 new first-mortgage bonds; $200 new second-mortgage bonds; $200 land scrip, and $140 new stock.

North & South, of Georgia.

A meeting of the stockholders was held in La Grange, Ga., April 19, to arrange for the reorganization of the company under the act lately passed. An executive committee was appointed to ascertain what number of the former stockholders were willing to subscribe 10 per cent. of their holdings for the extension of the road. A meeting of such stockholders is to be called in Columbus, Ga., by the committee within 30 days, to form a company to make a bid for the road.

Vicksburg & Brunswick.

Several years ago Barbour County, Ala., issued bonds in aid of this road, and these bonds were indorsed by the company. The county paid the interest until last year, when it failed to do so, and a number of the holders have recently begun suit to enforce the guarantee given by the company.

East Bound Rates.

On Wednesday of last week (April 19), rates were further reduced five cents per hundred on east-bound freight from Chicago to New York, becoming:

Chicago to—	Fourth-class.	Grain.
New York	35	30
Boston	40	35
Philadelphia	31½	27
Baltimore	30	26

These rates, however, were not adhered to even for a single day. The "break" seems to have been completed, and the several routes are said to have bid against each other, so that grain was taken for New York on the 20th at 29, 27½, and even 25 cents.

Erie.

The Hornellsville (N. Y.) *Times* says: "The third rail is progressing slow but sure, on the Buffalo Division. The frogs and most of the switches are laid. The culverts, cattle-guards and bridges are ready for the third rail. The track is all cleaned off and the ties spotted, and a train is at work distributing the iron."

The New York & Philadelphia New Line.

The opening of this line for business May 1 is announced. Five express trains will be run daily at first, leaving the depot of the Central Railroad of New Jersey in New York at 7.15, 9 a. m., 1.30, 4 and 6 p. m. This number will be increased as business may require. The time between New York and Philadelphia will be about 2 hours 45 minutes. Arrangements have been made by which Centennial passengers will be delivered at the main entrance to the Centennial Grounds. The station for general business in Philadelphia will be that of the North Pennsylvania road, at Berks and American streets.

Excursion trains were to pass over the line with a number of invited guests April 27.

The Philadelphia *Telegraph* of April 24 says:

"On Saturday a trial trip was made over the New York & Philadelphia New Line, by some of the officers of the road. A special train, consisting of one passenger car and one flat car, drawn by engine Yardly, made the run over the Delaware and Bound Brook Railroad, which forms the middle division of of the New Line, a distance of 27 miles, in 33¾ minutes, making no stops. Of this distance, 12.2 miles were run in 12¾ minutes, and 6 miles in 5¼ minutes. At one time a speed of 69 miles an hour was attained. The new line is now completed, is in splendid condition, and will be opened for regular business on the 1st of May. The trial was made under the charge of Mr. Francis H. Saylor, Superintendent and Engineer of the Delaware & Bound Brook Railroad."

Panama.

The first steamer of the new line between New York and San Francisco established by the Panama Transit Company in the interest of the Panama Railroad Company has sailed from New York, and arrangements have been made to continue the line regularly.

The company continues to prosecute its claim against the Pacific Mail, and has had attachments put upon a number of that company's steamers and its coal and stores in San Fran-

cisco. There are rumors, however, of a compromise, and of a possible lease of the Panama Railroad to the Pacific Mail Company, with a rental of not less than 12 per cent. per annum on the stock.

Delaware, Lackawanna & Western—Morris & Essex Division.

The eastern abutment of the bridge over the Hackensack River on the approach to the new Bergen tunnel has sunk badly, owing to the giving way of the foundation. The treacherous nature of the river bottom has already given much trouble and caused much delay in the construction of the bridge. The abutment will have to be entirely rebuilt on a new foundation, work on which has been already begun.

Central Pacific.

This company will send five car-loads of materials to illustrate the resources of the country, along its lines.

Scotio Valley.

An officer of this company writes to us as follows:

"Thirty miles, from Columbus to Circleville, will be opened for business May 1, and Chillicothe, 20 miles further, will be reached by June 1.

"The road has been built strictly on a cash basis, and the company has not one dollar of floating debt. The contractor has so far built the road from his own resources and has not called on the stockholders for any help. His contract is to build and equip the whole line from Columbus to Portsmouth, finishing all station houses, machine shops, etc., turning over to the company a first-class road, complete in every particular, ready for business. Thus far he has fully complied with his contract. The rails are furnished by the Cleveland Iron Company and the motive power by the Pittsburgh Locomotive Works.

"The mortgage on this road is only $12,000 per mile, and the bonds find a home market at 85 and interest.

"This line has been long needed and will open up one of the richest and oldest settled valleys in this State, heretofore only reached by the canal and stage coach, and will necessarily open up a large and lucrative business."

The time table, which is to go into force May 1, shows stations as follows, with their distances from Columbus:

Columbus	0	Reese's	11.0
Caldwell	2.3	Lockbourne	14.3
Fair Grounds	3.4	Hantoon	—
Friend street	4.2	Ashville	21.3
Livingston avenue	4.8	Stagetone	—
Daugherty	—	Circleville (Main street)	29.1
Hocking Junction	8.9	Cin. & Musk. Val. Junction	29.7

The direction of the line is nearly due south from Columbus, close by the side of the canal and the Scioto River.

Pittsburgh, Titusville & Buffalo.

The earnings and expenses for the first three months of 1876 are reported as follows:

	Earnings.	Expenses.	Net earnings.
January	$71,640 80	$55,737 95	$15,902 85
February	64,855 62	40,422 96	24,432 66
March	60,541 03	44,984 74	15,556 29
Three months, total	$197,037 45	$141,145 65	$55,891 80

The gross earnings are $1,713 and the net earnings $486 per mile; the expenses 71.65 per cent. of earnings. Three months interest on the mortgage bonds is $65,275, or $3,383.20 in excess of the net earnings, leaving, of course, nothing for the income bonds.

Sioux City & St. Paul.

The operations for the month of March are reported as follows:

Earnings from freight	$19,725 21
Passengers	5,633 57
Express, mails, etc	2,232 59
Total ($188 per mile)	$27,791 37
Expenses (75.4 per cent.)	20,955 38
Net earnings ($46 per mile)	$6,835 99
Rents	142 00
Equipment bond sinking fund	1,031 34
Total	$8,009 33
Elevator rents	$ 268 33
Illinois Central rent	1,666 00
Special equipment fund	2,248 00
State taxes	1,382 70
Insurance	200 00
	5,765 03
Balance for month	$2,244 30
Balance from February	4,176 60
Balance to April	$6,420 90

The gross earnings for the three months ending March 30 were $80,030.74, being an increase of 140 per cent. over the same time in 1875.

The Land Department reports for the three months ending March 31 sales of 9,385.4 acres for $50,564, the average price per acre being $5.38. The receipts were $75.60 in cash and $50,564 in bonds. There were no sales in March.

Valley, of Virginia.

The Baltimore *Gazette* of April 24 says: "Messrs. Wm. Seemuller, M. G. Harmon and Richard Norris, Jr., the committee of directors of the Valley Railroad who are vested with authority to lease the road, visited Philadelphia on Saturday. It is understood that they were for some hours in conference with parties looking to the leasing of the road, but that no definite contract was made. It is believed that an obstacle standing in the way of the proposed lease is the fact that the committee are authorized to lease the road for only a short period of time, and that the parties conferred with were unwilling to take the road on such terms, as they claimed that the lease would expire before the road would begin to prove a source of profit. It is understood that the committee were entirely satisfied with the responsibility of the parties, but that the matter of time was an insurmountable bar to the lease. The committee will on Tuesday report to the directors of the road. It is possible that the nature of the report will necessitate the calling of a meeting of the stockholders of the road thirty days from date."

Manchester & Keene.

At a meeting of the board held in Keene, N. H., April 20, it was resolved that the work of construction should begin as soon as the engineers can prepare the work for the contractors on the line already located.

Southern Pacific.

The San Francisco *Real Estate Circular* of recent date says: "Work on the Southern Pacific Railroad continues to be pushed with an undiminished force. The unusual and long-continued rain rendered progress difficult, except in the tunnels, nine of which are now complete, and work in all the others is going on well. The long tunnel, under the San Fernando mountain, is finished for 4,408 feet, leaving 2,542 feet to be taken out. At the rate of 24 feet per day (being 4 feet on each of the 6 faces), it will require until about July 1 to complete the work. This being the measure of progress on the line between San Francisco and Los Angeles, communication by rail between the two cities may reasonably be expected in July next. On the line from and south of Los Angeles, to the crossing of the Colorado River at Fort Yuma, the grade is complete for 150 miles. The track is laid 134 miles, and is in regular operation to Seven Palms, where a daily four-horse stage connects to Prescott, Tucson, and all points in Arizona."

This is an extension of 36 miles towards the Colorado River to the southeast of Los Angeles.

Nashville, Chattanooga & St. Louis.

Operations are reported as follows for the nine months from July 1, 1875, to March 31, 1876:

	1875-76.	1874-75.	Inc. or Dec.	P. c.
Earnings from passengers	$379,168	$390,042	Dec.. $10,874	2.8
Freight	929,599	911,908	Inc.. 17,691	1.9
Mails	28,956	28,956	... ...	....
Rents, etc	18,428	18,191	Inc.. 237	1.3
Total earnings	$1,356,151	$1,349,097	Inc.. $7,054	0.5
Expenses and taxes	784,418	926,816	Dec.. 144,398	15.5
Net earnings	$571,733	$420,281	Inc..$151,452	36.0
Interest on bonds	328,590			
Surplus	$243,143			

The earnings this year were $3,965 per mile and the expenses have been 57.84 per cent. of earnings.

New Orleans Pacific.

The Circuit Court has dissolved a temporary injunction granted to prevent the authorities of New Orleans from ordering an election on the question of levying a tax in aid of this road, on the ground that the application was premature. The court also refused to grant a *mandamus* to compel the holding of the election, on the ground that the city authorities had not as yet refused to comply with the law.

Valley, of Ohio.

At the annual meeting in Cleveland, O., April 19, the stockholders voted to authorize the execution of a mortgage on the property and the issue of bonds at the rate of $30,000 per mile. It was stated that $1,000,000 would complete the road to Canton and provide equipment.

Cincinnati, Wabash & Michigan.

The track is now laid to Alexandria, Ind., seven miles south of the late terminus at Summitville, making the line 103 miles long from Goshen southward. Track is being laid from Alexandria southward to Anderson, 11 miles, and the Superintendent expects to have the work done by May 10.

Lewisburg, Center & Spruce Creek.

The work on the extension of this road from Laurelton, Pa., southwestward towards Tyrone is progressing well. Seventy feet of the Paddy mountain tunnel is completed, and the balance, about 170 feet, will be finished in about 10 weeks. The grading on the road as far as Lemont may be said to be finished. A meeting of the directors was to be held in Philadelphia, April 25, to consider arrangements for procuring the ties and rails.

Cleveland, Willoughby & Chardon.

Surveys are to be made for this projected road, which is to connect Cleveland with the Painesville & Youngstown road.

Springfield, Effingham & Southeastern.

Messrs Adams, Solliday & Co., contractors, write of this road as follows: "We are now building the Springfield, Effingham & Southeastern Railroad from Effingham, in the State of Illinois, to Palestine, on the Wabash River, a distance of 55 miles. The work of construction is progressing rapidly, and by the first day of July we expect to have 28 miles completed. The whole line will be built by the first day of December next. It is being constructed on the narrow-gauge plan, and when completed will be a very fine paying local road. This line is designed, by all parties concerned, to form a link of the proposed St. Louis, Wabash & Indianapolis Narrow Gauge Railroad, which is now organized, and the preliminary survey will be made in a few days."

St. Paul & Pacific.

The bondholders' committee announced in Amsterdam April 8 that arrangements had been completed by which the committee certificates would be received in payment for lands. It also announced that possibly it would be impossible to secure the 90 per cent. of bonds necessary to carry out the agreement. The committee ask for a contribution of 3 per cent. of the face of the bonds for expenses, amounting to $150,000 on the whole issue. On this announcement the price of the bonds fell two points.

Eastern.

The Massachusetts Senate has passed the bill authorizing the settlement with the creditors to a third reading with two amendments, one that the nine directors shall be chosen, three by the stockholders and six by the bondholders, instead of giving the appointment to the trustees. The other provides that the bonds to be issued shall be called certificates of indebtedness, and that existing investments in stocks of other companies shall not be vitiated by the law of 1874.

Chesapeake & Ohio.

Receiver Wickham has completed arrangements for a better steamboat connection between Cincinnati and the Ohio River terminus of the road at Huntington.

The committee chosen to conduct the reorganization has issued a circular, in which its intentions are announced as follows: "It will be the aim of the Committee to perfect the reorganization without unnecessary delay, and in the arrangement of the details to consult the interest and convenience of the bondholders.

"They will co-operate with the trustees of the mortgages in bringing the suits for foreclosure, now pending in the courts of Virginia and West Virginia, to a satisfactory issue, and in securing a decree of sale as early as practicable; they will provide for the deposit of the outstanding bonds, when their surrender becomes necessary, with a responsible trust company or other suitable depository, and the issue of negotiable certificates in denominations to suit the convenience of the owners of the bonds; they will purchase the property when offered for sale, and make the necessary provision for the issue of the new securities and the proper organization of the successor company, and, in general, endeavor to devise and carry out such measures, in accordance with the terms of the plan of reorganization, as will best promote the objects and tend to secure the results for which it is designed."

The committee hopes that the outstanding bondholders will give in their assent to the plan, so that by the time of the sale there will be a practically unanimous agreement.

Grand Trunk.

The repair shops at Port Huron, Mich., were destroyed by fire on the morning of April 18, with one locomotive, which was in the shop at the time. The loss is estimated at $20,000. Several adjoining buildings were saved by the firemen and the employes of the company.

Rates of Pay for Mail Service.

The following are the rates proposed in the Post Office appropriation bill for the next fiscal year:

Railroad companies furnishing cars or parts of cars for the exclusive accommodation of mails shall be paid at the following uniform rates: When by order of the Postmaster-General mail cars are attached to trains, or space set apart for through or express mails on trains run regularly during any quarter on schedule time between terminal points at a rate of speed not exceeding 25 miles per hour, six mills per linear foot of interior full width car space per mile run; when run at a rate of speed exceeding 25 miles, and not over 30 miles per hour, seven mills per linear foot; exceeding 30 and not over 35 miles per hour, eight mills per linear foot; exceeding 35 miles per hour, nine mills per linear foot; provided no railroad company transporting the mails shall, when all requirements of the Postmaster-General are complied with, be paid a less rate than $30 per mile of road per annum. The Postmaster-General is directed to adjust the space furnished by each railroad company to the actual necessities of the service upon each railroad, and this adjustment shall be made during the last month of each quarter for the next succeeding quarter, and shall be certified by the officer authorized by the Postmaster-General to make the adjustment. Railroad companies whose roads were constructed in whole or in part by land grants on condition that the mails should be transported over their roads at such price as Congress should by law direct, shall receive only 75 per cent. of the compensation authorized by the bill to be paid other companies.

Northern Central.

This company has asked permission from the City Council of Baltimore to bridge over all that portion of Jones' Falls between Monument and Madison streets, the work to be done under the supervision of the City Commissioner, and approved by that officer and the Mayor. The company has recently acquired, by purchase, property on both sides of the Falls between the streets named, and the object in bridging the stream is to allow its use for the passage of vehicles laden with freight for the Northern Central and Western Maryland depots, which will have the effect of relieving North street of the standing lines of freight cars, which it is proposed to place upon tracks to be laid on the newly acquired property on either side of and parallel with the Falls. The company will agree to build a substantial bridge, to pay for necessary changes of street grade and to build a new sewer on each side of the stream.

Delaware Shore.

This company is now offering for sale through Bond, Moxey & Co., of Philadelphia, $200,000 of its 7 per cent. first-mortgage bonds at 90 and accrued interest. The proceeds are to be used in completing the road, which is all graded and has the track partly laid. It is to run from the West Jersey, near Woodbury, N. J., to Pennsgrove.

St. Paul & Sioux City.

This company reports operations for the month of March as follows:

Earnings from freight	$31,547 37
Passengers	9,148 19
Mails, express, etc	1,826 41
Total ($349 per mile)	$42,521 97
Working expenses (62.8 per cent.)	26,703 60
Net earnings ($130 per mile)	$15,818 37
Rents	81 00
Total	$15,899 37
State taxes	$850 44
Insurance	255 00
Interest on floating debt	2,394 03
	3,499 47
Balance for the month	$12,399 90
Balance from February	24,658 89
Carried forward to April	$37,058 79

For the three months ending with March the gross earnings are $125,742.23, or $1,031 per mile, and show an increase of 77.5 per cent. over the same period in 1875.

The Land Department reports for March sales of 320.41 acres for $1,511.29, average $5.16 per acre; cash receipts, $2,594.37. For the three months ending March 31 the sales were 1,656.35 acres for $10,783.37, an average of $6.48 per acre. The receipts on land contracts were $10,858.61 in cash and $669.33 in bonds.

Maine Railroad Taxation.

The Governor and Council of Maine have completed the annual assessment of taxes on the railroads of the State, the total amount of tax being $76,792.78. The total capital stock of the railroads taxed is $18,912,500, and the value of corporate franchises subject to taxation, $5,119,519. The following is the schedule: Atlantic & St. Lawrence (Grand Trunk), $27,949.62; Boston & Maine, $22,320.18; Dexter & Newport, $1,489.50; Maine Central, $12,030.12; Portland Horse, $775.80; Portland, Saco & Portsmouth, $8,920.50; St. Croix & Penobscot, $25.51; Lewiston & Auburn, $3,375; total railroad tax assessed, $76,792.78.

Georgia.

The bridge over the Ocmulgee River at Macon, Ga., on the Macon & Augusta Branch, which was carried away recently, was rebuilt in less than a week, work having been begun May 10, while trains crossed over on the afternoon of May 16. The road has suffered considerably from fire and flood of late and has shown commendable promptness in repairing damages.

Brazil, Bainbridge & Indianapolis.

The organization of this company is now completed, and arrangements are being made to begin work. The road will be 26 miles long, from Brazil, Ind., on the Terre Haute & Indianapolis road northeast to Bainbridge, and is intended to be mainly a coal road. The capital stock is $200,000.

Dutchess & Columbia.

The depot of this company at Dutchess Junction, N. Y., the point of connection with the New York Central & Hudson River road, was destroyed by fire April 21. The loss on the building was $9,000, and the Dutchess & Columbia Company loses all the maps, surveys and records of the road from the beginning, a loss which can hardly be estimated in money.

Buchanan & Clifton Forge.

Books of subscription to the stock of this road were opened in Richmond, Va., April 24. The road is to extend from Buchanan, the terminus of the James River & Kanawha Canal, to the Chesapeake & Ohio at Clifton Forge, a distance of 32 miles. The State of Virginia agrees to furnish convict labor and to take its pay in bonds of the company.

Mackinaw & Marquette.

The Marquette (Mich.) *Mining Journal* says of the recent offer to build this road and its unexpected withdrawal: "It appears that the Eastern parties to whom the Board of Control had decided to award the contract failed to connect on Wednesday last, at which time they were to be in Detroit, sign the contract and deposit their bonds. There has, it is evident, been a counter influence at work, which has been brought to bear upon the parties in question to cause them to reconsider their own proposition, and decline to carry out the arrangement. It is understood that when the parties met the Board in Detroit early in March, they came prepared to close the arrangement by signing the contract and depositing the necessary bond; but the Board, in its excessive wisdom, listened to a proposition from other parties, who offered to take the grant with twelve years' exemption from taxes instead of sixteen, as authorized by the act, and adjourned until the 29th. When they met on the 29th, the twelve year exemption party came in and demanded a further extension of forty days to enable them to make further inquiry concerning the value of the lands; the Eastern parties were not personally present, but advised the Board by telegram that they were willing to abide by their former offer. Thereupon the Board awarded them the contract,

and arranged by telegraph for a meeting at Detroit on the 12th, at which time the contract was to be signed, and the bonds deposited. Considering the matter closed, the Board, or some member of it, very injudiciously gave to the press the names of the contracting parties, whereupon the insidious influence of the Chicago & Northwestern Railway was set at work to convince the party that the grant was wholly valueless, and thus induce them to forego a completion of the arrangement. It was through the same influence that the Chicago company were led to demand further time to examine the lands; and the publication of the names of the gentlemen comprising the party upon whom the grant had been conferred, enabled that same influence to defeat the consummation of the enterprise.

"The Chicago & Northwestern Company look upon the building of the Mackinaw road as being inimical to their interests, and will spare no effort to defeat it. They very naturally desire to retain their present monopoly of the Lake Superior trade, and the State Board will have to be more reticent in the future, if that powerful corporation does not find the means to hinder, delay or defeat every negotiation into which it may enter looking to the construction of a rival line.

"We are assured, however, by those who ought to be well posted, that other parties (other than the Chicago company) stand ready to accept the contract on the same terms made with the Eastern men, and that the road will certainly be commenced at an early day."

Waterville & Washington.

This company has been incorporated to build a railroad from Waterville, Kan., the terminus of the Central Branch, Union Pacific, west by north to Washington, about 20 miles. The townships on the line are asked to vote subsidies.

Rockford, Rock Island & St. Louis.

In the United States Circuit Court at Chicago, April 21, a bill was filed by attorneys for Miss J. M. Hooper, a bondholder, asking that the road be taken from the possession of Mr. H. Osterberg and a new receiver appointed. The bill is very long and rehearses the history of the road and of its sale to Osterberg, the points chiefly dwelt upon being that the complainant with others had paid an assessment of 20 per cent., for which it was agreed that they should receive new first-mortgage bonds; that, contrary to this agreement, a first-mortgage had been given to the German-Austrian Bank to secure $260,000 borrowed to complete the purchase; that the Committee had agreed to treat all the bonds alike, in spite of the decree of the Court which gave preference to those of the first series; that Mr. Osterberg had refused an advantageous offer for the purchase of the road, to the detriment of the bondholders' interests; that Mr. Osterberg is working the road to his own personal advantage and neglecting the interests of bondholders.

Brotherhood of Locomotive Engineers.

A special convention of the divisions of the Brotherhood located in New England was held in Boston, April 20, representatives from nearly all the New England roads being present. Grand Chief Engineer P. M. Arthur presided. Resolutions were adopted setting forth that the rates of pay were generally lower than in other parts of the country and that on many roads new usages had been established and extra and additional work was required. For these reasons the Brotherhood is opposed to any further reduction of pay and to the unjust exactions of many roads, and protested against the constant increase of service and responsibility without corresponding increase of compensation.

Atlantic & Lake Erie.

The contractors have a large force on this road near Bremen, O. Near Moxahala there is to be a cutting 2,500 feet long with a tunnel 925 feet long, nearly all through rock. This heavy work has been let out to Wm. H. Merritt as sub-contractor.

Glendale & East River.

A meeting of the committees appointed to consider the question of building a narrow-gauge road from Brooklyn to Huntington, along the north shore of Long Island, was held in Roslyn, N. Y., April 22. It was stated that Huntington would subscribe $100,000, if necessary. It is proposed to build the road under a charter granted to a company of this name, and a committee was appointed to inquire into the standing of the charter, and especially to see whether it conferred the power to use steam through Williamsburgh or Brooklyn.

Maysville & Big Sandy.

John B. Poyntz, Agent for the former owners, gives notice that he has taken and resumed possession of the franchises, right of way, partly graded road-bed and other property of this company, which was some years ago conveyed to the Kentucky & Great Eastern Company. The latter has failed to complete the road or fulfil the conditions of the transfer.

Gilbert Elevated.

The Sixth Avenue Railroad Company has made application to the Superior Court for an injunction to prevent the construction of this road through Sixth avenue in New York. The grounds of the application are that the construction of the new road will work injury to the petitioner's chartered rights; that the road to be constructed is altogether different from that provided for in the charter of the Gilbert Company, the plan of construction being different and the present design being for a steam road, while the charter is for a pneumatic tube; that by the Gilbert charter the time for the construction of the road expires by limitation April 26; that the Rapid Transit Company had no legal right to permit or authorize the building of the road as proposed, and that the act of 1875 is unconstitutional as interfering with the vested rights of the complainant. The Court granted a temporary injunction.

Columbus & Mineral Valley.

Subscriptions to the amount of $125,000 have been made to the stock of this company and as soon as $175,000 are secured it is proposed to begin work. A meeting of stockholders is called for May 6 to act on the question of increasing the capital stock from $300,000 to $1,000,000. The road is to run from Columbus, O., by way of Bush's, Bremen, New Lexington, Moxahala and Ferrara into the coal fields of the Hocking Valley region. From Bush's to Bremen and from near New Lexington to Moxahala the route is identical with that of the projected Atlantic & Lake Erie road. From Bremen to New Lexington it is proposed to use for a time the track of the Cincinnati & Muskingum Valley road, though the intention is eventually to build an independent track. It is intended for a coal and iron road.

Louisville, Paducah & Southwestern.

In the United States Circuit Court in Louisville, Ky., April 20, a decree of foreclosure was ordered to be entered against this road, with an order of sale. The decree provides that the Main Line (Elizabethtown to Paducah) and the Louisville Extension be first offered for sale separately and then the whole line as one property, and that the separate or joint bids be accepted accordingly as the latter or the sum of the former is largest. Of the purchase money $15,000 is made payable in cash, the balance in four, eight and twelve months, with interest. The proceeds of the sale are to be applied: 1. To payment of taxes due. 2. To payment of certain right of way claims. 3. To payment of court costs and expenses of suit. 4. To payment of bonds and overdue coupons. The depot property in Louisville is to be sold separately and the proceeds applied to payment of taxes and mortgages on the property.

The Court refuses to allow the mechanics' liens claimed by the Baltimore Bridge Company and by the contractors and sustained the demurrers to the cross bills filed by Myer & Hay and the city of Louisville. The Baltimore Bridge Company gave notice of appeal from this decision, which was allowed.

The Main Line is 185 miles long, from Elizabethtown, Ky., westward to Paducah, and the Louisville Extension 45 miles, from Cecilian Junction to Louisville. There are separate first mortgages on each line. Notice of the time of sale will be given hereafter.

Pekin, Lincoln & Decatur.

Under foreclosure of the first mortgage this road was sold at auction in Springfield, Ill., April 21, in pursuance of a decree of the United States Circuit Court. The property was bought by John J. Martin for account of the bondholders, the price paid being $500,000. The road is 67 miles long, from Decatur, Ill., to Pekin, and is worked by the Toledo, Wabash & Western. The first-mortage bonds amount to $1,076,000, on which there is about a year and a quarter's interest overdue.

Columbus & Toledo.

The first shipment of iron rails from the Columbus Rolling Mill was made April 15, and the steel rails will begin to be forwarded from Cleveland this week. The iron bridge over the Olentangy River near Columbus is completed.

Connecticut Valley.

Application is to be made to the Connecticut Legislature for authority to build a new bridge across the Connecticut River between Hartford and East Hartford, to give a new connection between this road and the leased Connecticut Central. The connection is now made over the Hartford, Providence & Fishkill track and bridge.

Missisquoi & Clyde Rivers.

The original plan of this road was for a line from Richford, P. Q., by Newport, Vt., to the Grand Trunk at Island Pond, N. H. The section from Richford to Newport was completed some three years ago and leased to the Southeastern Company of Canada. A movement is now on foot to build the extension from Newport southeast to Island Pond, about 20 miles. The work is heavy for a little way out of Newport, but the balance would not be very expensive. It is possible that this section may be built as an independent line, and either worked as such or leased to the Grand Trunk to be worked as a branch.

Lafayette, Bloomington & Mississippi.

Mr. John A. Jones, Special Master, gives notice that he will sell this road at public auction in Springfield, Ill., May 16, under a decree of foreclosure of mortgage granted by the United States Circuit Court at suit of A. B. Baylis, trustee. The sale will include the road from Bloomington, Ill., eastward to the Indiana line (81 miles) with the franchises and all real or personal property of the company. By terms of the decree bondholders are allowed to bid on the property and their bonds will be accepted in payment at a *pro rata* valuation to be fixed according to the amount of the bid. The road, which was opened in 1872, has been worked by the Toledo, Wabash & Western since its completion. The bonds outstanding are $1,300,000, on which default was first made in February, 1875.

Laurens.

Work on this road, which has been suspended for several months, was resumed April 20. It is believed that a sufficient amount has been subscribed and paid in to secure the completion of the road, 14 miles of which are still to be restored.

Cumberland & Ohio.

This company has presented a petition to the Louisville City Council, setting forth the present condition of the road and asking that the city loan its credit to the company to the amount of $1,200,000. This will enable the company to build a branch from the main line at Taylorsville to Louisville, about 30 miles, for which surveys have been made and right of way secured, and to complete the main line to Greensburg, Ky., 104 miles from Louisville. If the loan is made, a first mortgage on this 104 miles of road will be given to the city as security. The petition, which is very long and sets forth the advantages which the city will derive from the road, was referred to a committee.

Utica, Ithaca & Elmira.

The Elmira (N. Y.) *Advertiser* says:

"It has been fully determined to build at once the short length between De Ruyter and Smith's Valley of 15 miles, which will complete the through line between our city and Utica, and by an arrangement with the New York Central, over their track to Troy and Albany, to Boston and New England. This will be made the line for the transportation of soft coal from the mines direct to all parts of New England. Cars will be loaded without change of bulk to whatever place of destination the coal will be required. Of course there will be no end to the market that will then be offered. Passenger trains will run with no changes between this city and Utica, as soon as the short 15 miles link can be completed. Similar arrangements are being perfected, which will be ready for public announcement ere long, whereby the same road will have the use of an independent line between here and Syracuse, for the transportation of passengers and coal, thus avoiding the present connection at Cortland."

Indianapolis, Peru & Chicago.

This company proposes to abandon its present entrance into Indianapolis, and to lay a new track parallel and close to that of the Cleveland, Columbus, Cincinnati & Indianapolis. It has made a proposition to the city intended to settle certain points now in litigation as to the opening of certain streets. The proposal is that the city shall give the right of way, grade the new road and pay $15,000, in return for which the company, in connection with the Cleveland, Columbus, Cincinnati & Indianapolis, will agree to limit the width of their joint tracks at street crossings, to open several streets at their own expense and to abandon the ground occupied by the old line of the Peru road to the city.

The Illinois Tax Cases.

In the suits known as the Illinois tax cases the United States Supreme Court has reversed the decision of the Circuit Court and holds that the companies' remedy for alleged illegal or excessive taxation is not by injunction against the collection of the tax, but by suit to recover after paying the taxes.

These suits were brought to restrain the collection of the taxes of 1873, which, it was claimed, were excessive in amount and in part at least illegally levied. The decision, if correctly reported by the telegraph, does not touch the legality of the taxes themselves, but only refers to the remedy tried by the companies.

ANNUAL REPORTS.

Atlantic & Gulf.

This company owns and works the following lines:

	Miles.
Main Line, Savannah, Ga., east by south to Bainbridge	237
River Extension, to wharves on Savannah River	2
Albany Division, Thomasville to Albany	59
Florida Division, Dupont, Ga., to Live Oak, Fla.	48
Junction Branch, Savannah & Charleston connection	4
Total	350

The Junction Branch, which gives the road for the first time a direct connection with the Savannah & Charleston road, and opens to the trains of that road an entrance into Savannah, was begun in October and opened for the passage of trains Dec. 1. The company's lines serve a large section of Southern Georgia, with some good and much poor country. Its Albany Division extends into the great cotton country of Southwestern Georgia, and its Florida Division forms the only rail connection to East and Middle Florida.

The equipment consists of 25 engines, of which 23 are in running order, one needs a new boiler and one is being rebuilt; 19 passenger, 4 smoking and baggage and 4 mail and express cars; 219 box, 11 stock, and 117 flat cars; 4 road cars and one steam pile driver. Of the box cars 33 are used as express, baggage or caboose cars. One log-truck was condemned during the year. There are 10 hand and 17 push cars.

The present report, the twenty-first made by the company, covers the year ending Dec. 31, 1875. Excluding the ordinary current balances, the capital account at the close of the last two fiscal years was as follows:

	1875.	1874.
Stock	$3,693,700 00	$3,693,200 00
South Georgia & Florida guaranteed stock	785,976 69	786,476 69
Total stock	$4,479,676 69	$4,479,676 69
Company's bonds	2,300,000 00	2,310,300 00
South Georgia & Florida bonds	664,000 00	664,000 00
Bainbridge Extension, free bonds	52,500 00	52,500 00
Junction Branch bonds	45,000 00	.....
Coupon notes	500,000 00	500,000 00
Total bonds and notes	$3,561,500 00	$3,526,700 00
Due bills, used as currency	80,000 00	76,800 00
Bills payable	184,978 32	175,264 19
Total floating debt	$264,978 32	$252,064 19
Total	$8,306,155 01	$8,258,440 88

The stock is $12,799; bonds, $10,176; floating debt, $757; total, $23,732 per mile owned.

The work done was as follows:

	1875.	1874.	Inc. or Dec.	P. c.
Total engine mileage	706,812	651,900	Inc.. 54,912	8.4
Total revenue train mileage	601,820	588,457	Inc.. 13,363	2.3
Total mileage of passenger cars	1,813,199	1,744,642	Inc.. 68,557	3.9
Total mileage of freight cars	5,161,639	5,258,703	Dec.. 97,064	1.8
Total mileage of foreign cars	387,726	242,174	Inc., 145,552	60.1
Total mileage of revenue cars	7,362,564	7,245,519	Inc.. 117,045	1.6
Total mileage of service cars	361,751	448,866	Dec.. 87,114	19.4
Passengers carried	105,100	103,921	Inc.. 1,179	1.1
Bales cotton carried	96,541	119,480	Dec.. 22 939	19 2
Feet lumber carried	34,068,641	36,946,588	Dec..2,877,947	7.8
Barrels naval stores carried	48,949	28,700	Inc.. 20,249	70.6
Vegetables and fruit, packages	17,681	8,834	Inc.. 8,847	100.1
Vegetables and fruit, car-loads	133	5	Inc.. 128	....

The receipt and expense per revenue train mile was as follows:

	1875.	1874.	Inc. or Dec.	P. c.
Receipts	$1 60	$1.75	Dec..$0 15	8 6
Expenses	1.06	1.24	Dec.. 0.18	14.5
Net earnings	$0.54	$0.51	Inc.. 0.03	5.9

The total expense for engine service per mile was 22 cents, against 28 cents in 1874, a decrease of 6 cents, or 21.4 per cent.

The earnings of the year were as follows:

	1875.	1874.	Inc. or Dec.	P. c.
Freight	$632,733 53	$738,802 83	Dec. $56,069 30	7.6
Passage	209,503 59	195,501 51	Inc. 14,002 08	7.2
Mails	38,264 99	26,266 00	Inc. 11,998 99	45.6
Incidentals	35,367 65	71,685 82	Dec. 36,318 17	50.7
Total earnings	$965,869 76	$1,032,256 16	Dec. $66,386 40	6.4
Working expenses	638,941 63	735,228 32	Dec. 96,286 69	13.1
Net earnings	$326,928 13	$297,027 84	Inc. $29,900 29	10.1
Gross earn. per mile	2,791	$2,984	Dec. $193	6.4
Net " " "	945	859	Inc. 86	10.1
Per cent. of exps	66.15	71.23	Dec. 5.08	7.1

Of the freight earnings 73 per cent. were from local business, 14 per cent. from Florida through and the rest from other through business. Of passenger earnings, 58 per cent. were from local, 31 per cent. from Florida and 11 per cent. from other through travel. The Florida business increases steadily in importance, and more than balances the loss by the diversion of the Chattahoochee River trade to Eufaula and Columbus. The decrease in freight earnings was caused by short cotton and other crops, but was nearly made up by increase in naval stores and by fruit and vegetable shipments. The latter business promises well and pains are being taken to foster it by giving every possible advantage in rates and accommodations.

Expenditures for improvements and additions to property were $11,457.31. The cost of the Junction Branch was $38,782.-05, about $9,500 per mile. Some little work is yet to be done on the track and a few right of way claims to be adjusted. The work could have been done for less, had it not been necessary to complete it within a very limited time, only 35 days.

The Roadway Department used in improvements 292,509 feet lumber: in repairs, 1,797,708 feet lumber, 115.743 new ties, 590½ tons new iron rails, 60 frogs and 19 switches. During the year 1,177 feet new sidings were built, making the whole length of sidings in use 16 miles 1,416 feet. The bridges and buildings on the road have received extensive repairs, several new water stations and freight sheds have been built and extensions made to the passenger and freight platforms in Savannah. The Savannah River wharf has been extended 458 feet and new tracks laid. A gravel train has been kept at work widening and ballasting the road-bed.

The Machinery Department has maintained the equipment in good repair and furnished all necessary work to other departments.

The decrease in incidental earnings results from the fact that there was included under that head in 1874, $49,268.21, recovered from the Central Railroad of Georgia for rails seized by the Confederate Government during the war and converted to the use of that road.

All payments necessary to maintain the credit of the company have been promptly met. Considering the general depression, the results of the year have not been unfavorable, and an improvement is confidently expected during the current year.

Allegheny Valley.

This company owns and works the following lines:

	Miles.
River Division, Pittsburgh, Pa., to Oil City	132
Plum Creek Branch	7
Low Grade Division, Red Bank to Driftwood	110
Sligo Branch	10
Total	259

The ownership of the Sligo Branch has been in dispute, it

being claimed that the former President, Col. Phillips, built it without authority. The company owns a controlling interest in the Oil Creek & Allegheny River (now Pittsburgh, Titusville & Buffalo) Railroad, and is absolute owner of the Buffalo, Corry & Pittsburgh road, from Corry, Pa., to Brocton, N. Y., which was bought at foreclosure sale. The Low Grade Division and Sligo Branch have been worked since May 1, 1874.

The equipment consists of 74 engines, 81 passenger, 11 baggage and mail cars; 2,012 freight cars, 1 pay and 41 working cars.

The capital account at the close of the year, Dec. 31, 1875, was as follows:

Assets.

Road and equipment ($92,037 per mile)	$23,837,683 79
Cash, materials and agents' balances	469,703 57
Oil Creek & Allegheny River stock, 41,000 shares	1,692,250 00
Buffalo, Corry & Pittsburgh road, cost	501,634 56
Brady's Bend Bridge Company stock	30,000 00
Balance to be charged to construction	26,784 64
Balance due from Oil Creek & Allegheny River	138,811 21
Claims in suit	408,532 48
Balance of income account	661,597 47
Total	$27,757,697 67

Liabilities.

Capital stock ($8,365 per mile)	$2,166,500 00
Funded debt ($67,112 per mile)	17,382,000 00
Income bonds ($20,864 per mile)	5,403,900 00
Total stock and bonds ($96,341 per mile)	$24,952,400 00
Bonds and mortgages on real estate	136,443 97
Suspended debt	676,140 52
Coupons advanced for Pennsylvania Railroad Co.	1,049,685 00
Interest accrued, due January and April, 1876	441,579 28
Due other roads on current account	133,030 34
Accounts and bills payable	368,418 56
Total ($107,173 per mile)	$27,757,697 67

It will be remembered that in 1874 the company was in bankruptcy and made a compromise settlement with its creditors, full particulars of which were given at the time. During the past year the settlement of the suspended debt has been made by most of the creditors on the terms of the composition in bankruptcy. The amount remaining unsettled with the close of 1875 was $676,140.52. Of this, $111,895.22 is secured debt incurred for the purchase of the Buffalo, Corry & Pittsburgh Railroad. The income bonds issued to Dec. 31, 1875, on account of suspended debt and interest amount to $5,403,900. Contributions by the Pennsylvania, Philadelphia & Erie and Northern Central companies to the payment of the deficit in the company's earnings of the amount needed to pay interest on the income bonds, under the terms of the contract of Oct. 2, 1874, amount to $99,681.89; interest on the income bonds held by individuals, has been paid in cash as due; that to the railroads in bonds.

The earnings for the year were as follows:

	1875.	1874.	Inc. or Dec.	P. c.
Freight	$1,895,207 20	$1,823,306 27	Inc.. $71,900 93	3.9
Passengers	421,764 47	508,100 26	Dec.. 86,335 79	17.0
Mails	25,292 71	11,280 35	Inc.. 14,012 36	124.0
Express	17,750 59	14,040 36	Inc.. 3,710 23	26.5
Rents	4,835 54	5,565 12	Dec.. 729 58	13.0
Miscellaneous	34,787 97	27,179 64	Inc.. 7,608 33	27.6
Total	$2,399,638 48	$2,389,472 00	Inc.. $10,166 48	0.4
Working exps	1,414,996 35	1,470,784 73	Dec.. 55,788 38	3.8
Net earnings	$984,642 13	$918,687 27	Inc.. $65,954 86	7.2
Gross earn. per mile	$9,265	$110,911	Dec.. $1,646	15.1
Net earn. per mile	3,802	4,195	Dec.. 393	9.4
Per cent. of expenses	58.97	61.55	Dec.. 2.58	4.2

The earnings and expenses are divided as follows:

	Earnings.	Expenses.	Net earn.	Earn. per mile.	P.c. of ex.
River Division and Plum Creek Br'ch.	$1,868,193 55	$1,139,935 40	$728,258 15	$13,440	61.02
Low Grade Division	510,473 55	263,286 87	247,186 78	4,641	51.58
Sligo Branch..	20,971 28	11,774 08	9,197 20	2,097	56.14
Total	$2,399,638 48	$1,414,996 35	$984,642 13	$9,265	58.97

The freight earnings show an encouraging increase, which, with that from other sources, more than balanced the loss on passengers. The great decrease in passenger earnings "is attributable in part to the low prices at which crude oil ruled during the year, which discouraged adventures in that line, but perhaps more largely to the fact that few persons had, during the past year, any surplus income, and traveling was a luxury that had to be dispensed with."

Reference is made to the Oil Creek & Allegheny River Company, the foreclosure sale of the property and the reorganization of the road under an agreement by which the stockholders retained their interest, this company consequently still continuing to hold its controlling interest.

It is believed that the Allegheny Valley road is in better condition than for several years past. It has been worked with unusual exemption from casualties; no serious accident occurred and no passenger was killed or injured during the year.§

New Jersey Southern.

The lines worked under this name are as follows:

	Miles.
Sandy Hook, N. J., by Long Branch and Whiting to Pemberton Junction	65.0
Southern Division, Whiting to Bayside	71.0
Port Monmouth Branch, Eatonton to Port Monmouth	10.0
Tom's River Branch, Manchester to Barnegat Junction	20.5
Atco Spur, Atsion to Atco	9.5
Total	176.0

The road has been, since April 30, 1874, in possession of Hon. Benjamin Williamson, trustee under the first mortgage, and the present report is made to him by Mr. Wm. S. Sneden, General Manager, who has charge of its operations. In addition to the railroad a steam ferry about 20 miles long, from New York to Sandy Hook, is maintained throughout the year, and during the peach season another ferry was run from Bayside across Delaware Bay to Bombay Hook.

The earnings for the year ending Dec. 31 were as follows:

	1875.	1874.	Inc. or Dec.	P.c.
Passengers	$3[illegible]4,987 05	[illegible]	[illegible]	[illegible]
Freight	156,341 38	[illegible]	[illegible]	[illegible]
Mails and express	22,778 05	[illegible]	[illegible]	[illegible]
Other sources	11,703 78	[illegible]	[illegible]	[illegible]
Total earnings	$515,810 26	$513,654 81	Inc.. $2,155,45	0.4
Expenses of railroad..	281,215 94	[illegible]	[illegible]	[illegible]
New York ferry, steamer service, dock rents, etc.	123,516 68	[illegible]	[illegible]	[illegible]
Delaware ferry	1,801 17	[illegible]	[illegible]	[illegible]
Total expenses	$406,533 79	$383,811 22	Inc.. $22,722 57	5.9
Net earnings	$109,276 47	$129,843 59	Dec.. $20,567 12	15.8
Gross earn. per mile.	$2,931	$2,919	Inc.. $12	0.4
Net " "	621	738	Dec.. 117	15.8
Per cent. of expenses.	78.81	74.72	Inc.. 4.09	5.5

The report does not separate the earnings of the railroad proper from those of the steam ferry, which is, however, an essential part of the line and carries little or no business except that which comes to and from the road. The steamer expenses were reduced about $17,400, owing to the saving in charters by the purchase of the Jesse Hoyt, leaving an increase of about $37,000 in road expenses. This increase was caused mainly by the greater train service and the attempt to stimulate the through business and that of the Southern Division to make up for the loss of traffic caused by the opening of the New York & Long Branch road, and by the increased repairs to road, bridges and equipment, which were necessary, and which have been thoroughly done. A fast through train and other additional trains were run, and the attempt to secure additional business was fairly successful. The total train mileage was: 1875, 331,490; 1874, 256,241; increase, 75,249 miles, or 29.4 per cent. The loss in passenger business was about $20,000, but the increase in freight earnings more than made it up.

In connection with the New York & Long Branch road an effort was made to secure a portion of the Delaware peach business by running tugs and barges from Bayside to the Delaware shore and about 53,000 baskets were carried. The route gave satisfaction to the growers, but more could not be secured, owing to the fact that the great bulk of the crop was in the northern part of the State, which could not be reached by this line. Better results are expected for the current year.

The steamer Jesse Hoyt has been thoroughly repaired, lengthened 20 feet, and furnished with new boilers. She can now carry 1,500 passengers. The new steamboat Crystal Wave has been chartered for the coming season.

The Trustee's income account for the year is as follows:

Net earnings		$109,276 47
Interest on investments		2,653 67
Difference in prepaid insurance and water rent		351 73
Total		$112,281 87
Construction and renewals	$29,852 98	
Surplus of fuel and materials bought	8,842 02	
Balance of purchase money, Jesse Hoyt	25,330 01	
On account of new boilers, " "	2,400 00	
Long Branch & Sea Shore coupons paid	14,000 00	
Tom's River Branch " "	8,226 00	
Legal expenses on foreclosure account	10,037 92	
Accounts charged off	1,227 52	
		99,915 45
Surplus for year		$12,366 42
Balance of cash account, Jan. 1, 1875		76,507 85
Balance, Jan. 1, 1876		$88,874 27

Mr. Sneden says: "Without the large expenditure due to the increased mileage above mentioned, we should have fallen off in our gross receipts much more than enough to counterbalance the amount, and it is not to be forgotten that it will accrue to the advantage of the road the coming year. The increased accommodation given and the good time made by our through trains last summer, have advertised the route and made it popular with the traveling public. * * * *

"It is proper for me to state that the railroad and its equipments are worth more money intrinsically to-day than when you took possession as Trustee, and that the whole mortgaged property has very largely increased in value. The line is now well established, and its credit good, so that everything required for maintaining the road is obtained at cash prices. This result could not have been attained except from the fact of the large personal guarantees which you have given to provide the necessary equipments, and for expenditures absolutely necessary to maintain and run the road. I am happy to say that I hope in the future not to be under the necessity of calling upon you for any further personal guaranty."

The Minor New Jersey Railroads in 1875.

From the reports made in conformance with law by the various railroad companies of New Jersey, for 1875, the following figures are taken, and include those companies which do not otherwise report. The statements made do not include any information as to traffic. The capital accounts are as follows:

Company.	Miles Owned.	Stock.	Bonds.	Other Debt.	Total Stock and Debt.
Bridgeton & Port Norris	21	$300,000	$400,000	$7,000	$707,000
Camden, Gloucester & Mt. Ephraim	3	51,098	43,500	.....	94,598
Farm'gdale & Squan Village	9	62,400	100,000	.....	162,400
Ferro-Monte	2½	30,000	.....	.....	30,000
Freehold & Jamesburg	17	283,745	.....	.....	283,745
Hibernia Mine	5½	150,000	.....	.....	150,000
Montclair & Greenwood Lake	37	.....	.....	109,114	109,114
Mt. Hope Mineral	4½	160,000	.....	.....	160,000
New Jersey & New York	36½	1,187,400	932,500	413,880	2,535,780
Northern, of New Jersey	26	1,000,000	400,000	.....	1,400,000
Ogden Mine	10	450,000	.....	.....	450,000
Sussex	35	1,638,600	236,500	.....	1,875,100
Tuckerton	31	207,924	408,000	.....	615,924
Warren	21½	1,800,000	1,359,800	.....	3,159,800

The Farmingdale & Squan Village road is leased to the Freehold & Jamesburg. The Montclair & Greenwood Lake was sold under foreclosure late in the year, and the new company had not, at the date of the report, issued any stock or bonds. The various short lines and branches leased to the United New Jersey, the Central, the Morris & Essex, the West Jersey and the Erie are not included, reports for them being made by the lessees.

The earnings and expenses for the year were as follows:

	Miles worked.	Earnings.	Expenses.	Net earnings.	Earnings p. mile.	P.c. of expa.
Bridgeton & Port Norris	21	$37,913	$32,650	$5,263	$1,805	86.15
Camden, Gloucester & Mt. E.	3	19,969	18,216	1,753	6,656	.....
Ferro-Monte	2½	14,775	9,882	4,893	5,910	66.88
Freehold & Jamesburg	28	61,573	50,033	2,540	2,199	95.87
Hibernia Mine	5½	24,775	10,043	14,732	4,505	40.50
Montclair & Gr'nwood Lake*	37	13,190	14,572	*1,382	356	110.48
New Jersey Midland†	85½	537,234	536,892	342	6,283	.....
New Jersey & New York‡	33¼	184,084	129,674	54,410	5,559	70.44
Northern, of New Jersey	26	278,992	244,215	34,777	10,730	87.53
Ogden Mine	10	38,442	17,049	21,393	3,844	44.35
Sussex	35	116,610	94,200	22,410	3,332	80.78
Tuckerton	31	31,517	25,514	5,903	1,017	81.27
Warren	21½	618,991	377,935	241,056	28,790	61.06

* November and December only; deficit.
† Nine months and 23 days; report by receivers.
‡ Year ending Oct. 31; mileage is average for the year.

The Camden, Gloucester & Mt. Ephraim includes interest paid in expenses. The only companies reporting traffic are the Ferro-Monte, which carried 44,778½ tons iron ore; 4,125 tons coal, and 11 cars lumber; the Hibernia Mine, which carried 37,199 tons iron ore; 3,696 tons coal, and 742 tons other freight, and the Ogden Mine, which carried 45,102 tons iron ore and 1,706 tons coal. The New Jersey Midland is the receivers' report and includes, besides working expenses, a large amount paid for right of way, rents and other liens outstanding when the receivers took possession.

Payments from net earnings are reported as follows:

	Interest.	Dividends.	Rates of div.
Hibernia Mine	.....	$15,000	10 per cent.
Northern, of New Jersey	.....	.....	3½ " "
Ogden Mine	.....	18,000	4 " "
Sussex	$16,555	.....	.....

The Delaware, Lackawanna & Western Company, which leases the Warren Railroad, paid 7 per cent. dividends on its stock, under the terms of lease.

LOCOMOTIVE RETURNS, JANUARY, 1876.

Master Mechanics of all American railroads are invited to send us their monthly reports for this table.

NAME OF ROAD.	Number of miles operated	Number of Locomotives in service	Mileage. Total	Mileage. Average per Engine	No. Miles run to. Ton of Coal	No. Miles run to. Cord of Wood	No. Miles run to. Pint of Oil	Average No. of freight cars hauled	Average cost per freight car per mile, cents.	Cost per Mile in Cents for. Repairs	Fuel	Stores	Miscellaneous	Engineers, firemen, and wipers	Total	Av. c'st of. Coal, per ton or bushel	Wood per cord
																$	$
Allegheny Valley (River Division)*‡	199	46	94,027	2,044	35.19	.....	18.70	16 80	1.01	6.12	3.74	0 74	.....	7 33	17.93	1.12	4 56
" " (Low Grade Division)*.	120	18	32,327	1,796	25 40	.....	18.35	17.00	1.29	4.26	5.11	0.79	.....	6 97	17.13	1.21	5.56
Atlantic & Great West'n (1st & 2d Div.)	228	82	217,428	2,652	38.79	.....	18.29			4.99	5.90	0.55	0.72	6.24	18.40	2.07	3.16
" " (Third & Fourth Div.)	197	48	125,702	2,619	38.79	.....	21.02	.....	.....	5.20	5.90	0.59	0.84	6.09	18 49	2.07	3.16
" " (Mahoning Division)	83	55	85,208	1,549	38.79	.....	19.19	.....	.....	4.77	5.90	0.54	0.60	6.01	17.88	2.07	3 16
Cairo & Vincennes	157	11	30,869	2,806	40.30	.....	11.70	.....	.....	3.24	3.98	0.45	.....	6.02	13.69	1.56	....
Camden & Atlantic	67	12	15,891	1,324	54.33	.....	16.00	.....	.....	7.28	9 30	0.83	...	5.83	23.24	5.00	.....
Cleve., Col., Cin. & Ind.(Col'bus Div.)	138	56	149,536	2,719	43 81	61.91	35 09	.....	.....	2.36	4.49	0.54	.....	7.40	14.79	1.75	3.50
" " " (Indianapolis Div.)	207	62	197,546	3,186	42.49	53.14	24.87	.....	.....	4.33	4 82	0.60	.....	7.15	16.90	1.75	3 50
" " " (Cincinnati Div.)	130	28	79,960	2,856	35.40	..	27.63	.....	.....	3.13	5.36	0.54	.....	7.06	6.09	1.7	3 80
Cleveland & Pittsburgh*	199	73	125,614	1,721	57.57	..	41.52	14.20	1.15	3.78	3.22	0 62	3.45	7.37	18 44	1.45	1.70
Cleveland & Mahoning Valley	41	6	14,313	2,386	31.80	.....	18.16	.....	.....	1.35	5.29	0 39	0.86	6.70	15.0	1 74	2.87
Del., Lacka. & West. (Bloomsburg Div.)	80	24	53,860	2,244	....	.....	26.20	.....	.....	2.99	.....	0.75	.....	5.95	9.69	....	....
Hannibal & St. Joseph	294	54	139,023	2,575	33.30	.....	22.20	.....	.....	3 80	6 20	0.46	.....	6.89	17.40	2.0	3.00
Illinois Central (Chicago Division)†	253	68	152,051	2,237	36.99	.....	13.60	15 82	.....	5.23	6 55	0.32	.....	6.71	18.83	2 30	4.00
" (South Division)†	231	32	75,413	2,357	42.99	...	13.31	14.72	...	6.78	5 63	0.31	.....	6.[illegible]	19.34	2.30	4.00
" (North Division)†	235	44	93,072	2,115	32.36	.....	10.29	15 77	.....	7.70	7 49	0.44	.....	7.11	22.74	2.30	4.00
" (Iowa Division)†	401	45	109,205	2,427	34 65	...	17.39	11.71	...	4.97	8.9[illegible]	0.75	.....	6.31	20.45	3.00	5 12
Jeffersonville, Madison & Indianapolis	235	42	89,836	2,139	44.35	17 47	16 96	.....	1.31	3.41	5 99	0.50	2 88	7.20	19.68	2.55	2.14
Kansas Pacific, Main Line‡	673	85	146,904	1,728	30 84	.....	13.00	.....	.....	5.07	9.95	0.47	....	7.36	22.85	3.00	3.74
" including all branches‡	915	94	171,414	1,824	31.42	.....	13.35	.....	.....	4.42	10.05	0.46	.....	7.28	22.21	3.09	3.85
Kansas City, St. Jo. & Council Bluffs‡	334	26	62,643	2,409	43 90	.....	25.40	21.80	.....	3 80	7.80	0.80	.....	7.30	19.10	3.00	4.00
Lake Shore & Mich. So. (Buff. Div.)‖	.....	90	177,088	1,968	33.71	39.86	14 03	.....	.....	4.82	12.06	.....	.....	6.43	23.31	4.00	5.00
" " (Erie Div.)‖	.....	114	219,777	1 928	43.69	41.15	24 79	.....	.....	4.96	7.87	.....	.....	6.16	18.99	3.25	5.43
" " (Toledo Div.)‖	.....	83	161,364	1,944	38.81	51.40	12 84	.....	.....	3.43	8.83	.....	.....	6.45	18.71	3.45	4.8
" " (Mich. So. Div.)‖	....	208	383,[illegible]74	1,845	34.75	40.66	15.88	.....	.....	4.96	11.97	.....	.....	6.56	23.51	4.25	4.63
Leavenworth, Lawrence & Galveston	204	18	22,205	1,234	53.00	....	39.[illegible]0	.....	.....	6.91	6.49	0.31	.....	5.75	19.46	3.31	2.60
Marquette, Houghton & Ontonagon	88	10	9,138	914	4 [illegible].63	....	17.17	.....	.....	3.33	13 61	0.76	...	8.64	26.35	....	....
Pennsylvania (New York Division)	12[illegible]	119	265,535	2.231	36.34	....	10.29	.....	.....	7.75	13.57	1.19	.....	.....	22.51	4.79	7.29
" (Amboy Division)	154	47	87.710	1,866	54.01	....	14.58	.....	.....	5.10	8.80	0.90	.....	.....	14.80	4.79	7.29
" (Belvidere Division)	108	38	78,930	2,077	35.79	....	11.36	.....	.....	5.30	13.10	1 20	.....	.....	19.60	4.70	7.29
" (Philadelphia Division)	191	181	421.614	2,329	34.70	....	13.12	.....	.....	5.20	4.50	0.90	.....	.....	9 60	1.34	3.76
" (Middle Division)	137	111	286,151	2,578	30.22	....	19.31	.....	.....	11.60	4.70	0 70	.....	.....	17.00	1.34	3.76
" (Pittsb'gh Div., East End)	....	74	133 200	1,800	22 22	....	10.82	.....	.....	11.00	6.40	1.20	.....	.....	18.60	1.34	3.76
" (Pittsb'gh Div., West End)	.....	117	269,290	2,302	35.77	....	12.89	.....	.....	4.90	4.00	0.90	.....	.....	9.80	1.34	3.76
" (Tyrone Division)	107	28	54.051	1,930	25.94	....	24.39	.....	.....	2.40	5.60	0.60	.....	.....	8.60	1.[illegible]	3.76
" (West Pennsylvania Div.)	104	24	43.531	1,814	42.94	....	25 38	.....	.....	1.70	3.50	0.50	.....	.....	15.70	1.34	3.77
" (Lewistown Division)	19	2	4.144	2,072	41.94	....	18.52	.....	.....	6.30	3.50	0.60	.....	.....	10.40	1.34	3.76
" (Bedford Division)	57	3	5,778	1,926	41.16	....	25 38	.....	.....	1.90	3.60	0.50	...	.....	6.00	1.34	3 81
Philadelphia, Wilmington & Baltimore	..	76	150.511	1 980	57.81	....	10.12	.....	.....	9.50	9.20	1.20	.....	6.80	26.70	4.75	5.09
Pitts., Ft. Wayne & Chi. (East'n Div.)*	469	183	383,441	2.095	40.10	....	16.77	13.80	1.21	3.73	4.09	0 87	2.07	6.86	17.67	1 64	1.64
" " " (Western Div.)*	280	110	271,235	2 466	43.90	.....	17 20	16.90	0.99	3.43	5.05	0.47	2.64	6.71	18.30	2.22	2.22
Pitts., Cin. & St. L. (Little Miami Div.)	197	38	94.963	2.499	45.95	.....	12.73	.....	1.92	4.65	5.75	0.97	2.27	6.82	20.46	2.50	3.00
" " " (Pittsb. & Col. Div.)*	224	88	245,192	2,786	26.97	.....	15 29	16.49	1.20	6.80	4.77	0.86	2.43	6.76	21.62	1.20	3.50
South Carolina	242	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Louis, I. M. & So. (Arkansas Div.)	325	30	77.060	2,568	.....	42.40	17.90	.....	.....	2.60	7.66	0.5[illegible]	.....	7.05	17.80	.....	2.35
Terre Haute & Ind. (Indianapolis Div.)	113	....	66,629	.....	36.00	.....	20.70	.....	.....	7.47	7.17	0.89	.....	8.18	23.73	1.86	....
" " (Vandalia Div.)	188	....	75,237	.....	33.60	.....	21.20	.....	.....	5 76	4.86	0.95	.....	8.08	19.65	1.52	....
West Jersey	128	17	29,459	1,733	47.85	30.96	14.58	.....	.....	3.80	12.80	0.70	...	.....	17.30	5.15	4.34

* Five empty cars rated as three loaded ones.
‡ Switching and work train engines allowed 60 miles per day.
‖ Switching engines allowed 6 miles per hour.
† Two empty cars rated as one loaded one.
§ Three empty cars rated as two loaded ones.